

PERMIT NO. MI0022802



**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq; the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Orders 1991-31, 1995-4 and 1995-18,

City of Detroit Water and Sewerage Department
735 Randolph
Detroit, Michigan 48226

is authorized to discharge from the **Detroit Wastewater Treatment Plant** located at

9300 West Jefferson Avenue
Detroit, Michigan 48209

designated as **Detroit WWTP**

to the receiving water named the Detroit River and from combined sewer overflow facilities to the receiving waters named the Detroit River, the Rouge River and Conner Creek in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit is based on a complete application submitted on January 29, 2007.

This permit takes effect on January 1, 2008. The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules. On its effective date this permit shall supersede NPDES Permit No. MI0022802, expiring October 1, 2007, which is hereby revoked upon the effective date of this permit.

This permit and the authorization to discharge shall expire at midnight, **October 1, 2012**. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application which contains such information, forms, and fees as are required by the Department by **April 4, 2012**.

Issued _____

DRAFT – August 24, 2007
William Creal, Chief
Permits Section
Water Bureau

PERMIT FEE REQUIREMENTS

In accordance with Section 324.3120 of the Michigan Act, the permittee shall make payment of an annual permit fee to the Department for each October 1 the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by January 15 for notices mailed by December 1. The fee is due no later than 45 days after receiving the notice for notices mailed after December 1.

In accordance with Section 324.3118 of the Michigan Act, the permittee shall make payment of an annual storm water fee to the Department for each January 1 the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by March 15 for notices mailed by February 1. The fee is due no later than 45 days after receiving the notice for notices mailed after February 1.

In accordance with Section 324.3132 of the Michigan Act, the permittee shall make payment of an annual biosolids land application fee to the Department if the permittee land applies biosolids. In response to the Department's annual notice, the permittee shall submit the fee, which shall be postmarked no later than January 31 of each year.

CONTACT INFORMATION

Unless specified otherwise, all contact with the Michigan Department of Environmental Quality (the "Department") required by this permit shall be made to the Southeast Michigan District Supervisor of the Water Bureau. The Southeast Michigan District Office is located at 27700 Donald Court, Warren, Michigan 48092-2793, telephone: 586-753-3700, fax: 586-753-3751.

CONTESTED CASE INFORMATION

Any person who is aggrieved by this permit may file a sworn petition with the State Office of Administrative Hearings and Rules of the Michigan Department of Labor and Economic Growth, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department of Labor and Economic Growth may reject any petition filed more than 60 days after issuance as being untimely.

PART I

Section A. Limitations and Monitoring Requirements

1. Final Effluent Limitations, Monitoring Points 049F & 084A

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated municipal wastewater from Monitoring Point 049F through Outfall 049 and from Monitoring Point 084A (upon initiation of operation of Outfall 084) through Outfall 084. Outfalls 049 and 084 discharge to the Detroit River. Such discharge shall be limited and monitored by the permittee as specified below.

Until initiation of Outfall 084, whenever Outfall 049 is out-of-service for repairs, the permittee may discharge through Outfall 050 all effluent authorized for discharge from Outfall 049F, and the monitoring, limitations and other requirements specified below shall apply to the discharge through Outfall 050 unless otherwise specified. At least 10 days in advance of scheduled maintenance and within 24-hours after initiation of diversion due to emergency conditions, the permittee shall notify the Department of the reason for the diversion and the expected duration of the diversion.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Fecal Coliform Bacteria	---	---	---	---	200	400	---	cts/100 ml	Daily	Grab
Total Residual Chlorine	---	---	---	---	---	---	0.11	mg/l	Daily	Grab
Oil & Grease	---	---	---	---	---	15	---	mg/l	Daily	Grab
Total Poly-Chlorinated Biphenyls (PCBs)	2.0×10 ⁻⁴	---	---	lbs/day	2.6×10 ⁻⁵	---	---	ug/l	Weekly	24-Hr Composite
Acute Toxicity	---	---	---	---	---	---	(report)	TU _A	Quarterly	24-Hr. Composite
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	---	---	(report)	lbs/day	---	---	(report)	mg/l	Daily	24-Hr Composite
Ammonia Nitrogen (as N)	---	---	(report)	lbs/day	(report)	---	(report)	mg/l	Daily	24-Hr Composite
Available Cyanide	---	---	1000	lbs/day	---	---	132	ug/l	2x Monthly	Grab
Total Copper	---	---	(report)	lbs/day	---	---	(report)	ug/l	Quarterly	24-Hr Composite
Total Mercury	(report)	---	---	lbs/day	(report)	---	(report)	ng/l	2x Monthly	Grab
<u>12 Month Rolling Average</u>					<u>12 Month Rolling Average</u>					
Total Mercury										
Through Dec 2009	0.23	---	---	lbs/day	30	---	---	ng/l	Monthly	Calculation
Beginning Jan 2010	0.078	---	---	lbs/day	10	---	---	ng/l	Monthly	Calculation
					<u>Minimum Daily</u>		<u>Maximum Daily</u>			
pH	---	---	---	---	6.5	---	9.0	S.U.	Daily	Grab
Dissolved Oxygen	---	---	---	---	(report)	---	---	mg/l	Daily	Grab

PART I

Section A. Limitations and Monitoring Requirements

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: a combined 930 MGD of secondary treated effluent

- a. **Narrative Standard**
The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids or deposits as a result of this discharge in unnatural quantities which are or may become injurious to any designated use.
- b. **Sampling Locations**
The sampling locations for the pollutants indicated in Part I.A.1. of this permit shall be representative of the effluent and consistent with the locations approved by the Department.
- c. **Total Residual Chlorine**
Compliance with the Total Residual Chlorine limit shall be determined on the basis of one or more grab samples. If more than one (1) sample per day is taken, the additional samples shall be collected in near equal intervals over at least eight (8) hours. The samples shall be analyzed immediately upon collection and the average reported as the daily concentration. Amperometric Titration using either Standard Method 4500-Cl D, Standard Method 4500-Cl E or the Orion 97-70 electrode shall be used for analysis.
- d. **Analytical Methods and Quantification Levels for Available Cyanide and Total Copper**
The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring for Available Cyanide shall be in accordance with EPA Method OIA-1677. The quantification level for Available Cyanide and Total Copper shall be 2.0 ug/l and 10 ug/l respectively unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination. Upon approval of the Department, the permittee may use alternate analytical methods (for parameters with methods specified in 40 CFR 136, the alternate methods are restricted to those listed in 40 CFR 136).
- e. **Limits below the Quantification Level for Total Poly-Chlorinated Biphenyls**
The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring for Total Poly-Chlorinated Biphenyls (PCBs) shall be in accordance with EPA Method 608. The quantification level shall be 0.2 ug/l unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination.

The water quality-based effluent limitations for (PCBs) are less than the quantification level; therefore, control requirements are established consistent with R 323.1213. Any discharge of PCBs at or above the quantification level specified in this permit is a specific violation of this permit. If an effluent sample is less than the quantification level, the permittee will be considered to be in compliance with the PCB final effluent limitations set forth in Part I.A.1. for the period that the sample represents, provided that the permittee is also in full compliance with the Pollutant Minimization Program for PCBs set forth in Part I.A.9.

For the purpose of determining if an effluent sample is less than the quantification level, Total PCBs shall be defined as the sum of the individual analytical results for each of the aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260 with any aroclor result less than the quantification level being treated as a zero. For the purpose of reporting on the Discharge Monitoring Reports, the permittee shall calculate concentration and loading levels of Total PCBs in this same manner; however, the result of any individual aroclor measurement less than the quantification level but greater than the detection level shall be reported on the Daily Discharge Monitoring Reports (see Part II.C.2.). This paragraph does not authorize the discharge of PCBs at levels which are injurious to the designated uses of the waters of the state or which constitute a threat to the public health or welfare.

- f. **Total Mercury Testing Requirements**
The analytical protocol for total mercury shall be in accordance with EPA Method 1631, Revision E, "Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry". The quantification level for total mercury shall be 0.5 ng/l, unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination.

PART I

Section A. Limitations and Monitoring Requirements

The use of clean technique sampling procedures is strongly recommended. Guidance for clean technique sampling is contained in: EPA Method 1669, *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels (Sampling Guidance)*, EPA-821-R96-001, July 1996. Information and data documenting the permittee's sampling and analytical protocols and data acceptability shall be submitted to the Department upon request.

g. Final Effluent Limitation for Total Mercury

The final limit for total mercury is the Level Currently Achievable (LCA) based on a multiple discharger variance from the water quality-based effluent limit of 1.3 ng/l, pursuant to Rule 323.1103(9) of the Water Quality Standards. Compliance with the LCA shall be determined as a 12-month rolling average. The 12-month rolling average shall be determined by adding the present monthly average result to the preceding 11 monthly average results then dividing the sum by 12. For facilities with quarterly monitoring requirements for total mercury, quarterly monitoring shall be equivalent to 3 months of monitoring in calculating the 12-month rolling average. Facilities that monitor more frequently than monthly for total mercury must determine the monthly average result, which is the sum of the results of all data obtained in a given month divided by the total number of samples taken, in order to calculate the 12-month rolling average. If the 12-month rolling average for any month is less than the LCA, the permittee will be considered to be in compliance for total mercury for that month, provided the permittee is also in full compliance with the Pollutant Minimization Program for Total Mercury, set forth in Part I.A.9.

The permittee may choose to demonstrate that an alternate site-specific LCA is appropriate and request a permit modification. Such request and supporting documentation shall be submitted in writing to the Department. Supporting documentation shall include a minimum of 12 samples taken over a 12 month period in accordance with EPA Method 1631. Upon approval, this permit may be modified in accordance with applicable laws and rules to incorporate the alternate site-specific LCA as the effluent limitation for total mercury.

After a minimum of 12 monthly data points have been collected, the permittee may request a reduction in the monitoring frequency if the data indicate that the 12-month rolling average mercury concentration is less than 5 ng/l. This request shall contain an explanation as to why the reduced monitoring is appropriate and shall be submitted to the Department. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency for total mercury indicated in Part I.A.1. of this permit. The Department may revoke the approval for reduced monitoring at any time upon notification to the permittee.

h. Acute Toxicity Final Requirements

Test species shall include fathead minnow **and** either *Daphnia magna*, *Daphnia pulex* or *Ceriodaphnia dubia*. Testing and reporting procedures shall follow procedures contained in EPA-821-R-02-012, "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Edition)." When the effluent ammonia nitrogen (as N) concentration is greater than 5 mg/l, the pH of the toxicity test shall be maintained at the pH of the effluent at the time of sample collection. The acute toxic unit value (TU_A) for **each species tested** shall be reported on the Discharge Monitoring Report (DMR). For **each species not tested**, the permittee shall enter "***W**" on the DMR. Completed toxicity test reports for each test conducted shall be retained by the permittee in accordance with the requirements of Part II.B.5. of this permit and shall be available for review by the department upon request. After one year (12 sets of tests) of toxicity testing and upon approval of the Department, the monitoring frequency may be reduced if the test data indicate that the toxicity requirements of Rule 323.1219 of the Michigan Administrative Code are consistently being met. After one (1) year of toxicity testing and upon approval of the Department, the acute toxicity tests may be performed using the more sensitive species selected from the acute toxicity database. If a more sensitive species cannot be identified, the acute toxicity tests shall be performed with both species.

Toxicity test data acceptability is contingent upon the validation of the test method by the testing laboratory. Such validation shall be submitted to the Department upon request.

1) When monitoring shows persistent exceedance of the 3.0 acute toxic unit (TU_A) limit for effluent toxicity, the Department will determine whether the permittee must implement the toxicity control program requirements specified in 2) below.

PART I

Section A. Limitations and Monitoring Requirements

2) Upon written notification by the Department, the following conditions apply. Within 90 days of the notification, the permittee shall implement a Toxicity Reduction Evaluation (TRE). The objective of the TRE shall be to reduce the toxicity of the final effluent from monitoring points 049F and 084A to ≤ 3.0 TU_A. The following documents are available as guidance to reduce toxicity to acceptable levels. Phase I, EPA/600/6-91/003; Phase II, EPA/600/R-92/080; Phase III, EPA/600/R-92/081; and Publicly Owned Treatment Works (POTWs), EPA/833B-99/002. Annual progress reports shall be submitted to the Department within 30 days of the completion of the last test of each annual cycle.

i. Initiation of Operation of Outfall 084

The permittee is currently implementing measures for construction and completion of Outfall 084. On or before December 31, 2011, the permittee shall complete construction of Outfall 084 and place these facilities into full service. Upon receipt of written approval from the Department and consistent with such approval, the permittee may receive an extension of the date for initiation of operation of Outfall 084, if delays occur as a result of unanticipated subsurface conditions being encountered during construction of the outfall tunnel.

j. Diffuser/Mixing Zone Demonstration

Various effluent limitations applied at Monitoring Point 084A are based upon the permittee installing a diffuser at Outfall 084 that will achieve a 3:1 mix within the zone. Ninety (90) days prior to initiation of operation of Outfall 084, the permittee shall submit to the Department for approval a Diffuser Evaluation/Demonstration Plan outlining the proposed means for confirming that the exposure in the mixing zone will not result in deleterious effects to populations of aquatic life or wildlife pursuant to R 323.1082 (1).

1). Pursuant to R 323.1082(7) the plan shall contain at a minimum the following.

(i) A description of the amount of dilution occurring at the boundaries of the proposed mixing zone and the size, shape, and location of the area of mixing, including the manner in which diffusion and dispersion occur.

(ii) For sources discharging to the Great Lakes and inland lakes, a definition of the location at which discharge-induced mixing ceases.

(iii) Documentation of the substrate character within the mixing zone.

(iv) Confirmation that the mixing zone does not interfere with or block the passage of fish or aquatic life.

(v) Confirmation that the mixing zone would not likely jeopardize the continued existence of any endangered or threatened species listed or proposed under section 4 of the endangered species act or result in the destruction or adverse modification of the species' critical habitat.

(vi) Confirmation that the mixing zone does not extend to a public water supply source pursuant to R 323.1100(8).

(vii) Confirmation that the mixing zone would not interfere with the designated or existing uses of the receiving water or downstream waters.

(viii) Documentation of background water quality concentrations.

(ix) Confirmation that the mixing zone does not promote undesirable aquatic life or result in a dominance of nuisance species.

(x) Confirmation that, by allowing additional mixing/dilution, the following will not occur:

(A) The formation of objectionable deposits.

(B) The concentration of floating debris, oil, scum, and other matter in concentrations that form nuisances.

(C) The production of objectionable color, odor, taste, or turbidity.

2). The mixing zone demonstration shall also address all of the following items:

(i) Whether or not adjacent mixing zones overlap.

(ii) Whether organisms would be attracted to the area of mixing as a result of the effluent character.

(iii) Whether the habitat supports endemic or naturally occurring species.

(iv) Why an increased mixing zone is necessary.

(v) Describe any pollution prevention measures that were evaluated to eliminate the need for an increased mixing zone.

PART I

Section A. Limitations and Monitoring Requirements

3) The mixing zone demonstration shall be based on the assumption that environmental fate or other physical, chemical, or biological factors do not affect the concentration of the toxic substance in the water column, within the proposed mixing zone, unless both of the following occur:

(i) Scientifically valid field studies or other relevant information demonstrate that degradation of the toxic substance is expected to occur during typical environmental conditions expected to be encountered.

(ii) Scientifically valid field studies or other relevant information addressing other factors that affect the level of toxic substances in the water column, including all of the following factors:

(A) Sediment release or resuspension.

(B) Chemical speciation.

(C) Biological and chemical transformation.

Within one hundred eighty (180) days of initiation of the discharge from Outfall 084, the permittee shall submit to the Department a Diffuser Evaluation/Demonstration. Based on the results of the demonstration this permit may be modified in accordance with applicable laws and rules to include additional conditions and/or limitations as necessary.

PART I**Section A. Limitations and Monitoring Requirements****2. Final Effluent Limitations, Monitoring Point 049A**

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated municipal wastewater and treated storm water runoff from Monitoring Point 049A through Outfalls 049 and/or 084. Outfalls 049 and 084 discharge to the Detroit River. Such discharge shall be limited and monitored by the permittee as specified below.

Monitoring Point 049A is a primary treated effluent conduit. There shall be no discharge from Monitoring Point 049A directly to the Detroit River through Outfalls 049 and/or 084 unless the discharge from Monitoring Point 049B exceeds a peak hourly flow of 930 MGD (which includes recycle) or in accordance with an approved Wastewater Treatment Plant Wet Weather Operational Plan (see Part I.A.8.). Discharges from Monitoring Point 049A shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)		---	---	---	100	---	(report)	mg/l	Daily	24-Hr Composite
Total Suspended Solids		---	---	---	100	---	(report)	mg/l	Daily	24-Hr Composite
Total Phosphorus (as P)		---	---	---	2.5	---	---	mg/l	Daily	24-Hr Composite
Ammonia Nitrogen (as N)		---	---	---	(report)	---	(report)	mg/l	Daily	24-Hr Composite

a. Sampling Locations

Samples of the effluent from Monitoring Point 049A for CBOD₅, total suspended solids, ammonia nitrogen and total phosphorus shall be taken prior to mixing with other wastestreams from other monitoring points. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative of the effluent.

PART I

Section A. Limitations and Monitoring Requirements

3. Final Effluent Limitations, Monitoring Point 049B

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated municipal wastewater from Monitoring Point 049B through Outfalls 049 and 084. Outfalls 049 and 084 discharge to Detroit River. In addition, the permittee is authorized to discharge treated municipal wastewater from Monitoring Point 049B through Outfall 050 to the Rouge River as provided in Part I.A.4. Upon initiation of Outfall 084 all discharges through Outfall 050 are prohibited except as provided for in Part II.C.9.

Outfall 049B is the combined secondary treated effluent conduit for all dry weather flows and all wet weather flows up to and including a peak hourly flow of 930 MGD (which includes recycle).

Discharges from Monitoring Point 049B shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>		
Flow (This flow measurement is all secondary flow including recycle and buffer flows)	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Recycled Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily SFE Flow
Buffer Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	194,000	310,000	---	lbs/day	25	40	(report)	mg/l	Daily	24-Hr Composite
Total Suspended Solids	233,000	349,000	---	lbs/day	30	45	---	mg/l	Daily	24-Hr Composite
Total Phosphorus (as P)	7,800	---	---	lbs/day	1.0	---	---	mg/l	Daily	24-Hr Composite
Ammonia Nitrogen (as N)	---	---	---	---	(report)	---	(report)	mg/l	Daily	24-Hr Composite
<u>Minimum Monthly</u>										
CBOD ₅ Minimum % Removal	---	---	---	---	85	---	---	%	Monthly	Calculation
Total Suspended Solids Minimum % Removal	---	---	---	---	85	---	---	%	Monthly	Calculation

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: 930 MGD

- a. Sampling Locations
Samples for CBOD₅, total suspended solids, ammonia nitrogen and total phosphorus shall be taken prior to discharge to Monitoring Point 049B and prior to mixing with other wastestreams. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative of the effluent.
- b. Percent Removal Requirements
These requirements shall be calculated based on the monthly (30-day) effluent CBOD₅ and Total Suspended Solids concentrations and the monthly influent concentrations for approximately the same period.

PART I

Section A. Limitations and Monitoring Requirements

4. Final Effluent Limitations, Monitoring Point 050A

During the period beginning on the effective date of this permit and lasting until initiation of operation of Outfall 084, the permittee is authorized to discharge treated municipal wastewater and treated storm water runoff from Monitoring Point 050A through Outfall 050. Outfall 050 discharges to the Rouge River. Upon initiation of operation of Outfall 084 (see Part I.A.1. of this permit), all discharges from Outfall 050A are prohibited, except in accordance with Part II.C.9. of this permit.

Discharge from Outfall 050, the Rouge River Outfall, is not allowed unless hydraulically or structurally necessary. When Outfall 049 is out-of-service, the discharge may consist of secondary or secondary and primary treated effluent, or the discharge may consist of only primary treated effluent, if the discharge is the due to hydraulic constraints resulting from wet weather events. Discharges from Monitoring Point 050A shall be limited and monitored by the permittee as specified below.

Parameter	Maximum Limits for Quantity or Loading				Maximum Limits for Quality or Concentration				Frequency of Analysis	Sample Type
	Monthly	7-Day	Daily	Units	Monthly	7-Day	Daily	Units		
<u>Limitations and monitoring requirements in effect when Outfall 049 is out-of-service:</u> All limitations and monitoring specified in Part I.A.1. apply except for the available cyanide monitoring requirement and the fecal coliform bacteria limitations, which are replaced with the limitations and monitoring requirements specified below:										
Available Cyanide	---	---	---	---	---	---	89	ug/l	Daily	Grab
Fecal Coliform Bacteria	---	---	---	---	(report)	(report)	---	cts/100 ml	Daily	Grab
<u>Limitations and monitoring requirements in effect during other periods of discharge from Monitoring Point 050A:</u>										
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)				---	100	---	(report)	mg/l	Daily	24-Hr Composite
Total Suspended Solids	---	---	---	---	100	---	---	mg/l	Daily	24-Hr Composite
Total Phosphorus (as P)	---	---	---	---	2.5	---	---	mg/l	Daily	24-Hr Composite
Available Cyanide	---	---	---	---	---	---	89	ug/l	Daily	Grab
Fecal Coliform Bacteria	---	---	---	---	(report)	---	(report)	cts/100 ml	Daily	Grab
Ammonia Nitrogen (as N)	---	---	---	---	(report)	---	(report)	mg/l	Daily	24-Hr Composite
Total Copper	---	---	(report)	lbs/day	---	---	(report)	ug/l	Daily	24-Hr Composite
Total Mercury	---	---	---	---	(report)	---	---	ng/l	Weekly	Grab
Total PCBs	---	---	---	---	(report)	---	---	ug/l	Weekly	24-Hr Composite
Acute Toxicity	---	---	---	---	---	---	(report)	TU _A	Quarterly	24-Hr Composite
					Minimum Daily		Maximum Daily			
pH	---	---	---	---	6.5		9.0	S.U.	Daily	Grab
Dissolved Oxygen	---	---	---	---	(report)		---	mg/l	Daily	Grab

PART I

Section A. Limitations and Monitoring Requirements

a. Narrative Standard

The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids or deposits as a result of this discharge in unnatural quantities which are or may become injurious to any designated use.

b. Sampling Locations

The sampling locations for the pollutants indicated in Part I.A.4. of this permit shall be representative of the effluent and consistent with the locations approved by the Department.

c. Daily Frequency of Analysis

For purposes of monitoring and reporting on a discharge event which lasts less than 24 hours, but occurs during two calendar days, the pollutant loadings and concentrations for the event shall be reported as daily values on the day when the majority of the discharge occurred, and, for the parameters with required grab sampling, the actual sampling event shall preferably occur on the day when the majority of the discharge occurred.

For fecal coliform bacteria, the “daily maximum” shall be the geometric mean of all samples on any discharge day, provided that three (3) or more samples are collected. The fecal coliform bacteria “monthly average” shall be the geometric mean of all samples collected during the month, provided that five (5) or more samples are collected. The goal of the effluent sampling program for fecal coliform bacteria is to collect at least three samples during each discharge event, and samples shall be collected at shorter intervals at the onset of the event, if the permittee estimates that the event duration may be less than six hours.

d. Analytical Method and Quantification Level for Available Cyanide

The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring for Available Cyanide shall be in accordance with EPA Method OIA-1677. The quantification level for available cyanide shall be 2 ug/l unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination. Upon approval of the Department, the permittee may use alternate analytical methods (for parameters with methods specified in 40 CFR 136, the alternate methods are restricted to those listed in 40 CFR 136).

e. Total Mercury Testing Requirements

The analytical protocol for total mercury shall be in accordance with EPA Method 1631, Revision E, “Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry”. The quantification level for total mercury shall be 0.5 ng/l, unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination.

The use of clean technique sampling procedures is strongly recommended. Guidance for clean technique sampling is contained in: EPA Method 1669, *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels (Sampling Guidance)*, EPA-821-R96-001, July 1996. Information and data documenting the permittee's sampling and analytical protocols and data acceptability shall be submitted to the Department upon request.

f. Monitoring for Total Poly-Chlorinated Biphenyls

The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring for Total Poly-Chlorinated Biphenyls (PCBs) shall be in accordance with EPA Method 608. The quantification level shall be 0.2 ug/l unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination.

Total PCBs shall be defined as the sum of the individual analytical results for each of the aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260 with any aroclor result less than the quantification level being treated as a zero. For the purpose of reporting on the Discharge Monitoring Reports, the permittee shall calculate concentration and loading levels of Total PCBs in this same manner; however, the result of any individual aroclor measurement less than the quantification level but greater than the detection level shall be reported on the Daily Discharge Monitoring Reports (see Part II.C.2.).

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g. Acute Toxicity Requirements

Test species shall include fathead minnow **and** either *Daphnia magna*, *Daphnia pulex* or *Ceriodaphnia dubia*. Testing and reporting procedures shall follow procedures contained in EPA-821-R-02-012, "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Edition)." When the effluent ammonia nitrogen (as N) concentration is greater than 5 mg/l, the pH of the toxicity test shall be maintained at the pH of the effluent at the time of sample collection. The acute toxic unit value (TU_A) for **each species tested** shall be reported on the Discharge Monitoring Report (DMR). For **each species not tested**, the permittee shall enter "***W**" on the DMR. Completed toxicity test reports for each test conducted shall be retained by the permittee in accordance with the requirements of Part II.B.5. of this permit and shall be available for review by the department upon request. After one (1) year of toxicity testing and upon approval of the Department, the acute toxicity tests may be performed using the more sensitive species identified in the acute toxicity database. If a more sensitive species cannot be identified, the acute toxicity tests shall be performed with both species. Toxicity test data acceptability is contingent upon the validation of the test method by the testing laboratory. Such validation shall be submitted to the Department upon request.

The Department will review the toxicity data submitted by the permittee to determine if the acute toxicity requirements of Rule 323.1219 are being satisfied.

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5. Combined Sewer Overflow Retention Treatment Basin Discharge Authorization, Monitoring Points 101A, 102A, 103A, 104A, 108A and 109A

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated combined sewage from the Hubbell/Southfield Combined Sewer Overflow (CSO) Retention Treatment Basin (RTB), Monitoring Point 101A through Outfall 101, from the Puritan/Fenkell CSO RTB, Monitoring Point 102A through Outfall 102 from the Seven Mile CSO RTB, Monitoring Point 103A through Outfall 103 from the Belle Isle RTB, Monitoring Point 108A through Outfall 108 from the Oakwood RTB, Monitoring Point 109A through Outfall 109 and from the Conner Creek CSO RTB Monitoring Point 104A through Outfall 104 when the basins are full and wastewater flows exceed downstream interceptor capacity. Outfall 101, Outfall 102, Outfall 103 and Outfall 109 discharge to the Rouge River. Outfall 108 discharges to the Detroit River. Outfall 104 discharges to Conner Creek. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Influent Characteristics</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	---	---	---	---	(report)	---	(report)	mg/l	Daily	Grab
Total Suspended Solids	---	---	---	---	(report)	---	(report)	mg/l	Daily	Grab
Ammonia Nitrogen (as N)	---	---	---	---	(report)	---	(report)	mg/l	Daily	Grab
Total Phosphorus (as P)	---	---	---	---	(report)	---	(report)	mg/l	Daily	Grab
<u>Effluent Characteristics</u>										
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	---	---	---	---	(report)	---	(report)	mg/l	Daily	Grab
Total Suspended Solids	---	---	---	---	(report)	---	(report)	mg/l	Daily	Grab
Ammonia Nitrogen (as N)	---	---	---	---	(report)	---	(report)	mg/l	Daily	Grab
Total Phosphorus (as P)	---	---	---	---	(report)	---	(report)	mg/l	Daily	Grab
Fecal Coliform Bacteria										
May 1 – October 31	---	---	---	---	---	---	400	cts/100 ml	Daily	Grab
November 1 – April 30	---	---	---	---	---	---	1000	cts/100 ml	Daily	Grab
					<u>Daily Maximum</u>		<u>Instantaneous Maximum</u>			
Total Residual Chlorine										
Any Event	---	---	---	---	report	---	---	mg/l	Daily	Grab
(beginning November 1, 2009) (See Part I.A.1.d.)										
Any Event	---	---	---	---	1.5	---	---	mg/l	Daily	Grab
November – April	---	---	---	---	---	---	2.0	mg/l	Daily	Grab
May – October	---	---	---	---	---	---	3.0	mg/l	Daily	Grab

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<u>Effluent Characteristics</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>		
Oil & Grease (Monitoring Point 109A only)			---	---	(report <u>Minimum Daily</u>)	---	(report) <u>Maximum Daily</u>	mg/l	Daily	Grab
pH	---	---	---	---	(report)	---	(report)	S.U.	Daily	Grab
Dissolved Oxygen	---	---	---	---	(report)	---	---	mg/l	Daily	Grab

a. Retention Basin Monitoring and Reporting

The permittee shall monitor retention basin performance and report the monitoring consistent with the requirements of Part II.C.2. of this permit. The permittee shall supply the results of each sample taken during each discharge period. Influent reporting is required only when the basin has discharged.

Influent sampling shall be by grab samples collected every two (2) hours for the first eight (8) hours of flow into the basin and every four (4) hours thereafter for the duration of flow into the basin. The average of all discrete sample results shall be calculated for each calendar day of flow. The highest daily average for the calendar month shall be reported as the maximum daily concentration. The average of the daily averages shall be reported as the monthly concentration. Reporting of influent sampling results for the pollutant parameters indicated in Part I.A.5. is required only for combined sewer overflow events that result in an effluent discharge from the retention treatment basin. However, influent flow shall be reported for all events that cause combined sewer overflow to spill into the basin cells. Influent flow reporting shall also indicate the component of the total influent flow that is dewatered to the interceptor from the facility headworks during an event (this information shall be reported in an attachment to the monthly Discharge Monitoring Report forms). Alternate procedures for influent sampling may be approved by the Department.

Effluent sampling shall be by grab samples collected every two (2) hours for the first eight (8) hours of discharge and every four (4) hours thereafter for the duration of the discharge. The average of all discrete sample results shall be calculated for each calendar day of discharge. The highest daily average for the calendar month shall be reported as the maximum daily concentration. The average of the daily averages shall be reported as the monthly concentration.

For Fecal Coliform Bacteria, the “daily maximum” shall be the geometric mean of all samples on any discharge day, provided that three (3) or more samples are collected. The Fecal Coliform Bacteria “monthly average” shall be the geometric mean of all samples collected during the month, provided that five (5) or more samples are collected. The goal of the effluent sampling program is to collect at least three samples during each discharge event, and samples shall be collected at shorter intervals at the onset of the event, if the permittee estimates that the event duration may be less than six hours.

For purposes of reporting on a discharge event which lasts less than 24 hours, but occurs during two calendar days, the pollutant loadings and concentrations for the event shall be reported as daily values on the day when the majority of the discharge occurred.

b. Total Residual Chlorine and Disinfection Requirements

The permittee shall operate the CSO retention treatment facilities to provide consistent, effective disinfection while minimizing the discharge of total residual chlorine (TRC) as much as is feasible. For any specific discharge event, the daily maximum TRC shall not exceed 1.5 mg/l (**average of all samples during the event**), and any individual grab sample taken during the event shall not exceed 2.0 mg/l between November 1 and April 30 or 3.0 mg/l between May 1 and October 31. (**The facility shall be considered compliant with the instantaneous maximum limitation if 95 % of the samples taken in a season do not exceed the applicable limitation contained in Part I.A.5. of this permit.**) The permittee shall comply with these TRC limitations; however, compliance with these limitations shall not serve as valid justification for any failure to achieve compliance with the fecal coliform event geometric mean.

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Section A. Limitations and Monitoring Requirements

Specific procedures for adjustment of sodium hypochlorite (NaOCl) disinfectant feed rates to minimize the discharge of TRC shall be submitted as part of the Operational Plan (and revised as appropriate in annual updates), as required by Part I.A.3. of this permit. The procedures shall be implemented upon approval by the Department.

- c. **Retention Treatment Basin Dewatering**
The retention treatment basin shall be promptly dewatered as soon as possible following the need to divert flow to the basin and shall be maintained in readiness for use. The discharge of sludge or residual accumulations from the basin to the surface waters is prohibited. These sludges shall be promptly removed and disposed in accordance with procedures approved by the Department. Decanting of the RTB shall be performed in accordance with procedures approved by the Department.
- d. **Narrative Standard**
The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge in unnatural quantities which are or may become injurious to any designated use.
- e. **Operation and Maintenance Plan**
The permittee shall assure that discharges only occur in response to rainfall (or snowmelt) events and cease soon thereafter. Any rehabilitation and maintenance needs shall be addressed to ensure adequate sewer capacity and functionality. This may be accomplished through continued implementation of the approved Operation and Maintenance Plan.

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Section A. Limitations and Monitoring Requirements

6. Combined Sewer Overflow Screening & Disinfection Facilities Discharge Authorization, Monitoring Points 105A, 106A and 107A

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated combined sewage from the Lieb Combined Sewer Overflow (CSO) Screening & Disinfection Facility Monitoring Point 105A through Outfall 105, from the St. Aubin CSO Screening & Disinfection Facility Monitoring Point 106A through Outfall 106, and from the Baby Creek CSO Screening & Disinfection Facility Monitoring Point 107A through Outfall 107 when the wastewater flows exceed downstream interceptor capacities. Outfall 105 and Outfall 106 discharge to the Detroit River. Outfall 107 discharges to the Rouge River. Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristics</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Frequency of Analysis</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	---	(report)	MGD	---	---	---	---	Daily	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)					(report)		(report)	mg/l	Quarterly	Grab
Total Suspended Solids	---	---	---	---	(report)	---	(report)	mg/l	Quarterly	Grab
Ammonia Nitrogen (as N)		---	---	---	(report)	---	(report)	mg/l	Quarterly	Grab
Total Phosphorus (as P)	---	---	---	---	(report)	---	(report)	mg/l	Quarterly	Grab
Oil & Grease (Baby Creek CSO Screening & Disinfection Facility, only)	---	---	---	---	(report)	---	(report)	mg/l	Daily	Grab
Fecal Coliform Bacteria										
May 1 – October 31	---	---	---	---	---	---	400	cts/100 ml	Daily	Grab
November 1 – April 30	---	---	---	---	---	---	1000	cts/100 ml	Daily	Grab
					<u>Daily Maximum</u>		<u>Instantaneous Maximum</u>			
Total Residual Chlorine										
Any Event	---	---	---	---	report	---	---	mg/l	Daily	Grab
(beginning November 1, 2009)										
Any Event	---	---	---	---	1.5	---	---	mg/l	Daily	Grab
November – April	---	---	---	---	---	---	2.0	mg/l	Daily	Grab
May – October	---	---	---	---	---	---	3.0	mg/l	Daily	Grab
					<u>Minimum Daily</u>		<u>Maximum Daily</u>			
pH	---	---	---	---	(report)	---	(report)	S.U.	Daily	Grab
Dissolved Oxygen	---	---	---	---	(report)	---	---	mg/l	Daily	Grab

- a. Screening and Disinfection Facilities Monitoring and Reporting
The permittee shall monitor screening and disinfection facilities performance and report the monitoring consistent with the requirements of Part II.C.2. of this permit. The permittee shall supply the results of each sample taken during each discharge period.

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Effluent sampling shall be by grab samples collected every two (2) hours for the first eight (8) hours of discharge and every four (4) hours thereafter for the duration of the discharge. The average of all discrete sample results shall be calculated for each calendar day of discharge. The highest daily average for the calendar month shall be reported as the maximum daily concentration. The average of the daily averages shall be reported as the monthly concentration.

For Fecal Coliform Bacteria, the “daily maximum” shall be the geometric mean of all samples on any discharge day, provided that three (3) or more samples are collected. The Fecal Coliform Bacteria “monthly average” shall be the geometric mean of all samples collected during the month, provided that five (5) or more samples are collected. The goal of the effluent sampling program is to collect at least three samples during each discharge event, and samples shall be collected at shorter intervals at the onset of the event, if the permittee estimates that the event duration may be less than six hours.

For purposes of reporting on a discharge event which lasts less than 24 hours, but occurs during two calendar days, the pollutant loadings and concentrations for the event shall be reported as daily values on the day when the majority of the discharge occurred.

b. Narrative Standard

The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge in unnatural quantities which are or may become injurious to any designated use.

c. Total Residual Chlorine and Disinfection Requirements

The permittee shall operate the CSO retention treatment facilities to provide consistent, effective disinfection while minimizing the discharge of total residual chlorine (TRC) as much as is feasible. For any specific discharge event, the daily maximum TRC shall not exceed 1.5 mg/l (**average of all samples during the event**), and any individual grab sample taken during the event shall not exceed 2.0 mg/l between November 1 and April 30 or 3.0 mg/l between May 1 and October 31. (**The facility shall be considered compliant with the instantaneous maximum limitation if 95 % of the samples taken in a season do not exceed the applicable limitation contained in Part I.A.6. of this permit.**) The permittee shall comply with these TRC limitations; however, compliance with these limitations shall not serve as valid justification for any failure to achieve compliance with the fecal coliform event geometric mean.

Specific procedures for adjustment of sodium hypochlorite (NaOCl) disinfectant feed rates to minimize the discharge of TRC shall be submitted as part of the Operational Plan (and revised as appropriate in annual updates), as required by Part I.A.3. of this permit. The procedures shall be implemented upon approval by the Department.

d. Detroit CSO Pilot Project

Upon approval of the Department, the monitoring conducted as part of the Detroit CSO Pilot Project Evaluations required in Part I.A.11.e.4) of this permit may be substituted for the Screening & Disinfection Facility Monitoring Requirements in Part I.A.6. of this permit for the duration of the evaluation.

e. Operation and Maintenance Plan

The permittee shall assure that discharges only occur in response to rainfall (or snowmelt) events and cease soon thereafter. Any rehabilitation and maintenance needs shall be addressed to ensure adequate sewer capacity and functionality. This may be accomplished through continued implementation of the approved Operation and Maintenance Plan.

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7. Additional Monitoring Requirements

As a condition of this permit, the permittee shall monitor the discharge from monitoring point 049F for the constituents listed below. This monitoring is an application requirement of 40 CFR 122.21(j), effective December 2, 1999. Testing shall be conducted in four times within the period four and one-half years prior to the date of the re-application (by April 4, 2012). The monitoring schedule shall be representative of the seasonal variations in the discharge from Outfall 049. Grab samples shall be taken for total phenols, and parameters listed under Volatile Organic Compounds. For all other parameters, 24-hour composite samples shall be taken.

The results of such monitoring shall be submitted with the application for reissuance (see the cover page of this permit for the application due date). The permittee shall notify the Department within 14 days of completing the monitoring for each month specified above in accordance with Part II.C.5. Additional reporting requirements are specified in Part II.C.10.

After the initiation of Outfall 084, one sample may be submitted if it can be shown to also be representative of Monitoring Point 084A.

Hardness

calcium carbonate

Metals (Total Recoverable) and Total Phenols (Quantification levels in parentheses)

antimony (1 µg/l)	arsenic (1 µg/l)	barium (5 µg/l)
beryllium (1 µg/l)	boron (20 µg/l)	cadmium (0.2 µg/l)
chromium (5 µg/l)	lead (1 µg/l)	nickel (5 µg/l)
selenium (1 µg/l)	silver (0.5 µg/l)	thallium (1 µg/l)
zinc (5 µg/l)		
total phenolic compounds		

Volatile Organic Compounds

acrolein	acrylonitrile	benzene
bromoform	carbon tetrachloride	chlorobenzene
chlorodibromomethane	chloroethane	2-chloroethylvinyl ether
chloroform	dichlorobromomethane	1,1-dichloroethane
1,2-dichloroethane	trans-1,2-dichloroethylene	1,1-dichloroethylene
1,2-dichloropropane	1,3-dichloropropylene	ethylbenzene
methyl bromide	methyl chloride	methylene chloride
1,1,2,2-tetrachloroethane	tetrachloroethylene	toluene
1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethylene
vinyl chloride		

Acid-Extractable Compounds

p-chloro-m-cresol	2-chlorophenol	2,4-dichlorophenol
2,4-dimethylphenol	4,6-dinitro-o-cresol	2,4-dinitrophenol
2-nitrophenol	4-nitrophenol	pentachlorophenol
phenol	2,4,6-trichlorophenol	

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Base/Neutral Compounds

acenaphthene	acenaphthylene	anthracene
benzidine	benzo(a)anthracene	benzo(a)pyrene
3,4-benzofluoranthene	benzo(ghi)perylene	benzo(k)fluoranthene
bis(2-chloroethoxy)methane	bis(2-chloroethyl)ether	bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate	4-bromophenyl phenyl ether	butyl benzyl phthalate
2-chloronaphthalene	4-chlorophenyl phenyl ether	chrysene
di-n-butyl phthalate	di-n-octyl phthalate	dibenzo(a,h)anthracene
1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene
3,3'-dichlorobenzidine	diethyl phthalate	dimethyl phthalate
2,4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine
fluoranthene	fluorene	hexachlorobenzene
hexachlorobutadiene	hexachlorocyclo-pentadiene	hexachloroethane
indeno(1,2,3-cd)pyrene	isophorone	naphthalene
nitrobenzene	n-nitrosodi-n-propylamine	n-nitrosodimethylamine
n-nitrosodiphenylamine	phenanthrene	pyrene
1,2,4-trichlorobenzene		

8. Wastewater Treatment Plant Wet Weather Operational Plan

The approved Wastewater Treatment Plant Wet Weather Operational Plan provides the protocol for wastewater treatment plant operations during the interim period before full completion of the Long-term Combined Sewer Overflow (CSO) Control Plan. This plan details the necessary requirements to maximize wet weather treatment at the wastewater treatment plant, while complying with effluent limits and all other conditions of this permit, and minimizing untreated combined sewage discharges in the tributary collection system.

The Wastewater Treatment Plant Wet Weather Operational Plan shall be coordinated with the Collection System and CSO Treatment Facilities Operational Plan that is required implementation in accordance with Part I.A.11.f. of this permit. Annually, on or before January 1, the permittee shall submit an update of the Wastewater Treatment Plant Wet Weather Operational Plan to the Department for review and approval.

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9. Pollutant Minimization Program for Total Mercury and Total PCBs

The goal of the Pollutant Minimization Program is to maintain the effluent concentration of total mercury at or below 1.3 ng/l and the final effluent limitations for total poly-chlorinated biphenyls (PCBs). The permittee shall continue to implement the Pollutant Minimization Program approved on November 9, 1995 and updated on October, 1996, and modifications thereto, to proceed toward the goal. The Pollutant Minimization Program includes the following:

- a. an annual review and semi-annual monitoring of potential sources of mercury and PCBs entering the wastewater collection system;
- b. a program for quarterly monitoring of influent and periodic monitoring of sludge for mercury and PCBs; and
- c. implementation of reasonable cost-effective control measures when sources of mercury and/or PCBs are discovered. Factors to be considered include significance of sources, economic considerations, and technical and treatability considerations.

On or before October 1 of each year, the permittee shall submit a status report for the previous calendar year to the Department that includes 1) the monitoring results for the previous year, 2) an updated list of potential mercury and/or PCB sources, and 3) a summary of all actions taken to reduce or eliminate identified sources of mercury and/or PCBs.

Any information generated as a result of the Pollutant Minimization Program set forth in this permit may be used to support a request to modify the approved program or to demonstrate that the Pollutant Minimization Program requirement has been completed satisfactorily.

A request for modification of the approved program and supporting documentation shall be submitted in writing to the Department for review and approval. The Department may approve modifications to the approved program (approval of a program modification does not require a permit modification), including a reduction in the frequency of the requirements under items a. & b. if the data indicate that the 12-month rolling average mercury concentration is less than 5 ng/l.

This permit may be modified in accordance with applicable laws and rules to include additional mercury and/or PCB conditions and/or limitations as necessary.

10. Reopener for Primary and Secondary Treatment Capacity

The permittee is required to maintain a wet weather primary treatment capacity of 1700 MGD (raw) and wet weather secondary treatment capacity of 930 MGD (which includes recycle).

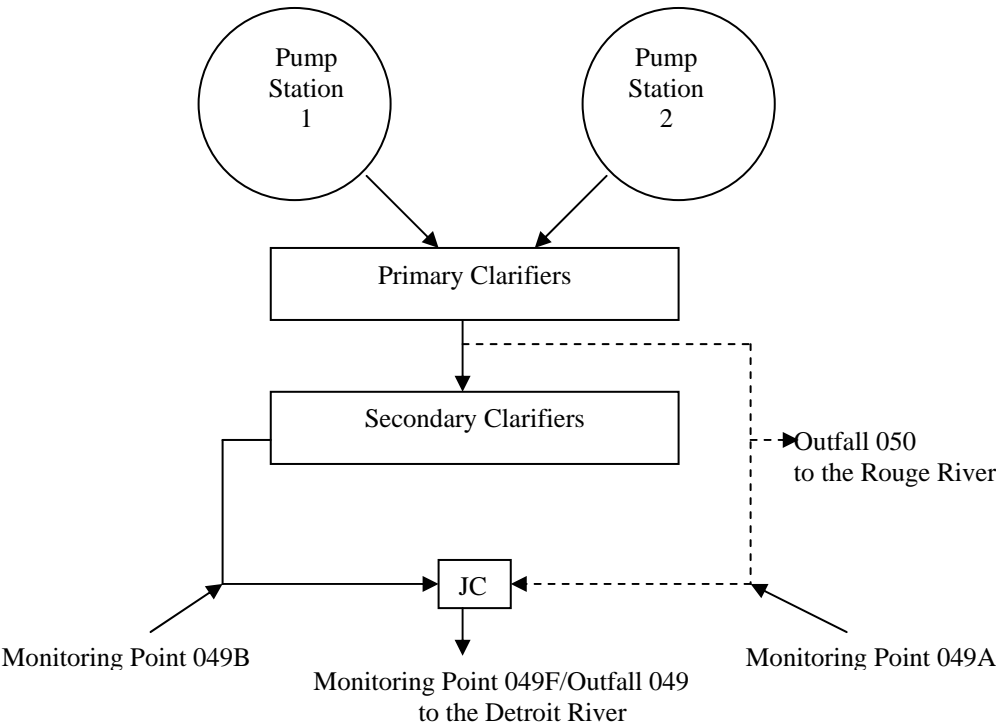
These required wet weather treatment capacities may be revised, if new/altered wet weather conditions (such as initiation of operation of upstream CSO facilities, etc.) indicate that either less or more flow can be effectively processed. The criteria used to determine whether the required wet weather primary treatment capacities should be revised must include additional plant evaluation under the updated conditions, using testing procedures approved by the Department.

For reference, outfall/monitoring point designations are shown on the following diagrams:

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Prior to Initiation of Operations of Outfall 084

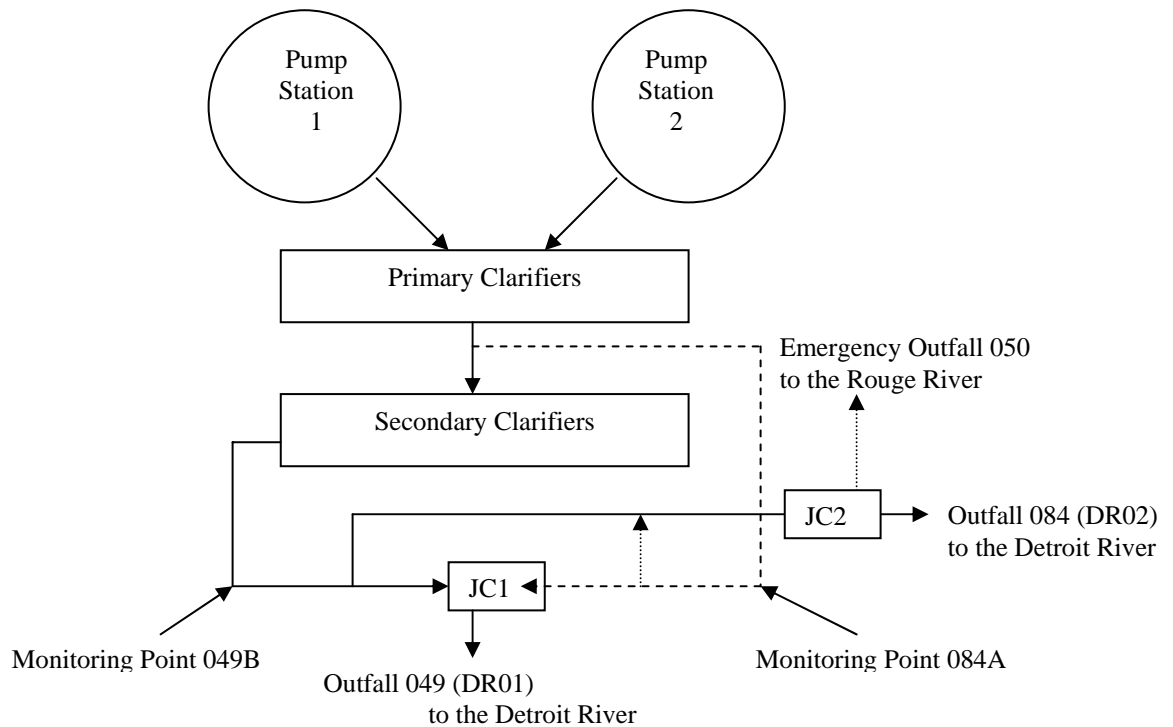


After Initiation of Operations of Outfall 084A

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JC



11. Discharges from Combined Sewer Systems

a. Limited Discharge Authorization

The permittee is required to utilize, to the maximum extent practicable, available sewerage system transportation capabilities for the delivery of combined sewage to treatment facilities. For an interim period during which the amended Long-term CSO Control Plan is to be implemented, the permittee is authorized to discharge during wet weather events (see Part II.A.) combined sewage from the outfalls and locations listed below in accordance with the following conditions:

- 1) a flow rate equivalent to the peak dry weather flow rate has been conveyed to the secondary treatment facilities for treatment without bypass;
- 2) the total sewerage system storage and transportation capacity for conveyance of wet weather flows to the treatment facilities for treatment has been utilized within the hydraulic design constraints of the system;
- 3) all primary treatment plant capacity and secondary treatment plant capacity, has been utilized, unless a storm event is localized to the extent that the hydraulic capacity of a portion of the collection system (considering storage) is exceeded prior to reaching plant capacities; and
- 4) the permittee is in full compliance with all requirements as set forth in Part I.A.11.

Combined sewer overflow discharges to the Rouge River are authorized until:

December 1, 2010 for Outfall 082;

August 1, 2012 for Outfalls 051-054 and Outfall 056; and

in accordance with a yet to be determined schedule for Outfalls 059-069, Outfalls 072-075, Outfall 077 and Outfall 079 (see Part I.A.11.e.2)).

Combined sewer overflow discharges to the Detroit River and the Old Channel of the Rouge River are authorized until:

March 1, 2008 for Outfall 083; and

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in accordance with the Amended Long-term CSO Control Plan (Amendment Detroit) for Outfalls 004-009, Outfall 011, Outfall 012, Outfalls 014-044, and Outfall 080 to the Detroit River, and Outfalls 046-048 to the Old Channel of the Rouge River (see Part I.A.11.e.8)).

<u>OUTFALL</u>	<u>LOCATION</u>	<u>LAT/LONG</u>	<u>RECEIVING STREAM</u>
004	Fairview (DWF) Pump Station (P28 through P31) Parkview & Detroit River - Emergency only	42°21'20" 082°58'01"	Discharge to Detroit River Stop-logged
005	McClellan (B03) McClellan (extended) & Detroit River	42°21'20" 082°58'02"	Detroit River
006	Fischer (B04) Fischer & Detroit River	42°21'16" 082°59'15"	Detroit River
007	Iroquois (B05) Iroquois & Detroit River	42°21'14" 082°59'21"	Detroit River
008	Helen (B06) Helen & Detroit River	42°20'40" 083°00'06"	Detroit River
009	Mt. Elliott (B07) Mt. Elliott & Detroit River	42°20'24" 083°00'28"	Detroit River
011	Adair (B09) Adair & Detroit River	42°20'16" 083°00'41"	Detroit River
012	Joseph Campau (B10) Joseph Campau & Detroit River	42°10'08" 083°01'02"	Detroit River
014	Dubois (B12) Dubois & Detroit River	42°20'01" 083°01'19"	Detroit River
016	Orleans Relief (B15) Orleans (Eastside of) & Detroit River	42°19'54" 083°01'36"	Detroit River
017	Orleans (B14) Orleans (Westside of) & Detroit River	42°19'53" 083°01'37"	Detroit River
018	Riopelle (B16) Riopelle & Detroit River	42°19'52" 083°01'42"	Detroit River
019	Rivard (B17) Rivard & Detroit River	42°19'48" 083°01'55"	Detroit River
020	Hastings (B18) Schweizer Place & Detroit River	42°19'46" 083°02'03"	Detroit River
021	Randolph (B19) Randolph & Detroit River	42°19'29" 083°02'26"	Detroit River
022	Bates (B20) Bates & Detroit River	42°19'38" 083°02'32"	Detroit River

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<u>OUTFALL</u>	<u>LOCATION</u>	<u>LAT/LONG</u>	<u>RECEIVING STREAM</u>
023	Woodward (B21) Woodward & Detroit River	42°19'37" 083°02'35"	Detroit River
024	Griswold (B22) Griswold & Detroit River	42°19'35" 083°02'28"	Detroit River
025	First-Hamilton (B23) First (extended) & Detroit River	42°19'30" 083°02'57"	Detroit River
026	Third St. (B24) Third St. & Detroit River	42°19'28" 083°03'07"	Detroit River
027	Cabacier (B25) Brooklyn (extended) & Detroit River	42°19'24" 083°03'26"	Detroit River
028	Eleventh St. (B26) Eleventh St. & Detroit River	42°19'17" 083°03'46"	Detroit River
029	Rosa Parks (B27) Rosa Parks & Detroit River	42°19'13" 083°03'56"	Detroit River
030	Vermont (B28) Vermont(extended) & Detroit River	42°19'06" 083°04'09"	Detroit River
031	Eighteenth St. (B29) Eighteenth St. & Detroit River	42°18'57" 083°04'31"	Detroit River
032	Twenty-First St. (B30) Twenty-First St. & Detroit River	42°18'53" 083°04'31"	Detroit River
033	Twenty-Fourth St. (B31) Twenty-Fourth St. & Detroit River	42°18'47" 083°04'42"	Detroit River
034	West Grand Blvd. (B32) West Grand Blvd. & Detroit River	42°18'41" 083°04'50"	Detroit River
035	Swain (B33) Swain & Detroit River	42°18'35" 083°04'56"	Detroit River
036	Scotten (B34) Scotten & Detroit River	42°18'31" 083°05'02"	Detroit River
037	McKinstry (B35) McKinstry & Detroit River	42°18'19" 083°05'13"	Detroit River
038	Summit-Clark (B36) Summit & Detroit River	42°18'14" 083°05'18"	Detroit River
039	Ferdinand (B37) Ferdinand & Detroit River	42°18'13" 083°05'19"	Detroit River
040	Morrell (B38) Morrell & Detroit River	42°18'10" 083°05'22"	Detroit River

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<u>OUTFALL</u>	<u>LOCATION</u>	<u>LAT/LONG</u>	<u>RECEIVING STREAM</u>
041	Junction (B39) Junction & Detroit River	42°18'07" 083°05'25"	Detroit River
042	Campbell (B40) Campbell & Detroit River	42°18'01" 083°05'30"	Detroit River
043	Dragoon (Livernois Relief) (B41) Dragoon (extended) & Detroit River	42°17'49" 083°05'41"	Detroit River
044	Schroeder (B42) Schroeder & West Jefferson	42°17'32" 083°06'00"	Detroit River
080	Fox Creek Backwater Gates (B01) East Jefferson & Fox Creek.	42°22'28" 082°56'27"	Fox Creek to Detroit River
083	Belle Isle Pump Station (No Monitor) Loiter Way Dr. & West of MacArthur Bridge	42°20'22" 082°59'53"	Detroit River
046	Cary (B44) Cary & Rouge River	42°17'29" 083°06'47"	Old Channel Rouge River
047	Dearborn St. (B45) Dearborn St. & Rouge River	42°17'26" 083°06'59"	Old Channel Rouge River
048	Pulaski (No monitor) Pulaski & Rouge River	42°17'21" 083°07'11"	Old Channel Rouge River
051	Carbon (B46) Carbon & Rouge River	42°17'07" 083°08'17"	Rouge River
052	Flora (B47) Flora & Rouge River	42°17'27" 083°08'31"	Rouge River
053	Fort St. (B48) West Fort St. & Rouge River (East Shore)	42°17'29" 083°08'31"	Rouge River
054	Fort St. (DWSD Northwest) Interceptor) (B50) South Fort St. & Rouge River (West Shore)	42°17'25" 083°08'35"	Rouge River
056	Fort St. (Oakwood District) (B49) South Fort St. & Rouge River (West Shore)	42°17'27" 083°08'33"	Rouge River
059	Warren (B54) West Warren & Rouge River	42°20'34" 083°14'57"	Rouge River
060	Tireman (B56, 57 & 58) Tireman & Rouge River	42°20'59" 083°14'51"	Rouge River
061	West Chicago (B60, 61 & 62) West Chicago & Rouge River (East Shore)	42°21'46" 083°14'56"	Rouge River

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<u>OUTFALL</u>	<u>LOCATION</u>	<u>LAT/LONG</u>	<u>RECEIVING STREAM</u>
062	West Chicago (B63) West Chicago & Rouge River (West Shore)	42°21'52" 083°15'18"	Rouge River
063	Plymouth (B64) Plymouth & Rouge River	42°22'18" 083°15'21"	Rouge River
064	Glendale Relief (B65) Rouge Park Golf Course	42°22'33" 083°14'52"	Rouge River
065	Lahser (Dolson)(B67 & 68) Lahser & Rouge River	42°22'52" 083°15'23"	Rouge River
066	Schoolcraft (B70) Jeffries Freeway, I-96 & Rouge River	42°23'07" 083°16'02"	Rouge River
067	West Parkway (B69) Jeffries Freeway, I-96 & Rouge River	42°23'07" 083°16'02"	Rouge River
068	Brammel (B71) Ray & Rouge River	42°23'30" 083°15'56"	Rouge River
069	Lyndon (B72) Lyndon & Rouge River	42°23'35" 083°15'57"	Rouge River
072	Puritan (B77) Puritan & Rouge River (East Shore)	42°24'28" 083°16'14"	Rouge River
073	Riverdale (B79) Florence & Rouge River	42°24'36" 083°16'13"	Rouge River
074	McNichols (B80 & 81) West McNichols & Rouge River	42°24'52" 083°15'59"	Rouge River
075	Glenhurst (B82) Glenhurst & Rouge River	42°25'32" 083°16'19"	Rouge River
077	Seven Mile (B85) West Seven Mile & Rouge River (East Shore)	42°25'44" 083°16'09"	Rouge River
079	Pembroke (B87) Frisbee & East Shore Rouge River	42°26'02" 083°16'24"	Rouge River
082	Oakwood (CSO) Pump Station (P42 through P47) Sanders & Liddesdale	42°17'01" 083°08'31"	O'Brien Drain to Rouge River

provided, however, that nothing in Part I.A.11 .a. of this permit shall be construed to limit the State of Michigan's ability to pursue remedies under the Michigan Act.

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- b. Interim Combined Sewer Overflow Control Program
 - 1) The permittee shall place the wastewater collection system under the supervision of a qualified Operations and Maintenance manager who shall serve as the contact person for the Department regarding combined sewer discharges. The permittee may replace the manager at any time and shall notify the Department within ten days after the replacement.
- c. Disconnection of Eaves Troughs and Roof Downspouts

The permittee shall eliminate direct connections of eaves troughs and roof downspouts to the sewer system throughout the service area tributary to combined sewer overflow (CSO) outfalls. This requirement shall be completed within 1 year after the effective date of this permit for residential property, and within 5 years after the effective date of this permit for commercial and industrial properties. In addition, this requirement shall apply to the service areas tributary to the Detroit Water and Sewerage Department's CSO Retention Treatment Basins (see Part I.A.5. of this permit) and to the Detroit Water and Sewerage Department's CSO Screening & Disinfection Facilities Basins (see Part I.A.5. of this permit). This requirement does not apply if the permittee demonstrates that the disconnection of eaves troughs and roof downspouts is not a cost-effective means of reducing the frequency or duration of combined sewer overflows or of maintaining compliance with this permit. Such a demonstration and supporting documentation shall be submitted to the Department for approval.
- d. Final Combined Sewer Overflow Control Program

The permittee is currently implementing Combined Sewer Overflow (CSO) Control Programs for the City of Detroit's various CSO outfalls that discharge to the Rouge River, the Detroit River, and some of the tributary waters. Depending upon the particular CSO Control Program and outfall, the permittee is required to provide for the elimination or adequate treatment of combined sewage discharges containing raw sewage, to comply with the Water Quality Standards at times of discharge.

For the combined sewer overflow outfalls discharging to the Rouge River, the development and implementation of the CSO Control Programs for the various outfalls is based upon the goals of the Rouge River Remedial Action Plan (RAP), which calls for a phased approach to solving the water quality problems of the river. Phase I of the Rouge River RAP extended to 1993 and included 1) monitoring and optimization of the existing combined sewer system, 2) detailed local planning for combined sewer overflow (CSO) controls and 3) resolution of financing and institutional problems. Phase II of the Rouge River RAP extends to 2005 (2012 for a few limited outfalls) and calls for facility construction based on the goal of protection of public health through the elimination of raw sewage discharges and the control of toxic pollutants. Phase III of the Rouge River RAP follows completion of Phase II facilities and includes further improvements, if necessary to comply with water quality standards at the time of discharge.

For the combined sewer overflow outfalls discharging to the Detroit River, including Conner Creek, Fox Creek, and the Old Channel of the Rouge River, Department approval of the CSO Control Programs is determined on a case-by-case basis with considerations for environmental impacts, public health impacts, technical feasibility, and economic affordability.

The implementation and completion of the CSO Control Programs indicated in Part I.A.11.e. are necessary and essential requirements of this permit.

1) CSO Control Program for Rouge River, Outfalls 051-054, and Outfall 056

The permittee shall control its combined sewer discharges so as to achieve the goal of the Rouge River Remedial Action Plan for the elimination of raw sewage discharges to protect Public Health (Phase II) for Outfalls 051-054, and Outfall 056 by 2012. The CSO Control Program's tasks and requirements shall be implemented in accordance with the following schedule.

- a) On or before February 1, 2009, the permittee shall submit to the Department an approvable detailed Basis of Design Report for elimination of raw sewage discharges to protect public health for Outfalls 051-054 and Outfall 056.

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- b) On or before August 1, 2009, the permittee shall submit approvable final plans and specifications (consistent with the approved Basis of Design Report) for elimination of raw sewage discharges to protect public health for Outfalls 051-054 and Outfall 56.
- c) On or before August 1, 2010 and in accordance with the approved plans & specifications, the permittee shall commence construction of the project for elimination of raw sewage discharges to protect public health for Outfalls 051-054 and Outfall 056.
- d) On or before August 1, 2012, the permittee shall complete construction and place into full operation/service the facilities of the project for elimination of raw sewage discharges to protect public health for Outfalls 051-054 and Outfall 056. After August 1, 2012, discharges of raw, untreated combined sewage from Outfalls 051-054 and Outfall 056 are prohibited.

This permit and the associated CSO Control Programs for Outfalls 051-054, and Outfall 056 may be modified to include appropriate effluent monitoring requirements, if the controls for the outfalls will provide adequate treatment of discharges (vs. eliminating the discharge).

2) Long-term CSO Control Program for Rouge River Outfalls 059-069, Outfalls 072-075, Outfall 077, & Outfall 079

For untreated combined sewer overflows from Outfalls 059-069, Outfalls 072-075, Outfall 077, and Outfall 079, the permittee shall provide for and meet the Department's presumptive standard(s) for adequate treatment of combined sewage discharges to meet Water Quality Standards at times of discharge. The proposed CSO control Retention Tunnel Facility, shall at a minimum, include a storage volume of 201 million gallons. The purpose of this facility is to meet the Department's presumptive standard for adequate treatment by reducing the frequency of discharge to less than one discharge as a yearly average from the CSO outfalls tributary to the Retention Tunnel. The CSO Retention Tunnel Facility will control CSO discharges from portions of Redford Township, Dearborn Heights and Detroit.

The permittee shall implement the Final Long-term Combined Sewer Overflow Control Program for Outfalls 059-069, Outfalls 072-075, Outfall 077, and Outfall 079 in accordance with the following schedule:

- a) On or before December 1, 2007, and in accordance with the approved Basis of Design Report, the permittee shall submit to the Department approvable final plans and specifications for a CSO control facility for discharges from Outfalls 059-069, Outfalls 072-075, Outfall 077, and Outfall 079. In addition, with the submittal of approvable final plans and specifications, the permittee shall submit to the Department a proposed Implementation Schedule that includes fixed milestone dates for start and completion of construction of the CSO control facility for discharges from Outfalls 059-069, Outfalls 072-075, Outfall 077, and Outfall 079. The permittee shall commence construction and complete construction in accordance with the approved Implementation Schedule.
- b) Following completion of construction of the CSO control facility for discharges from Outfalls 059-069, Outfalls 072-075, Outfall 077, and Outfall 079, the permittee shall conduct a CSO Control Evaluation Study to determine the facility's effectiveness in achieving the Department's presumptive standard(s) for adequate treatment by reducing the frequency of discharge to less than one event per year on average from the CSO outfalls tributary to the CSO Retention Tunnel Facility.
 - (1) Six (6) months prior to completion of construction of the CSO Retention Tunnel Facility, the permittee shall submit to the Department an approvable Workplan for conducting the CSO Control Evaluation Study. The Workplan shall indicate the method for determining the actual frequency, duration, and volume of discharges from each of the outfalls tributary to the CSO Retention Tunnel Facility.
 - (2) Over a period of fifteen (15) years following completion of construction of the CSO Retention Tunnel Facility and in accordance with the approved CSO Control Evaluation Study Workplan, the permittee shall monitor the actual frequency, duration, and volume of discharges from each of the outfalls tributary to the CSO Retention Tunnel Facility.

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(3) Sixteen (16) years following completion of construction of the CSO Retention Tunnel Facility, the permittee shall submit to the Department for approval CSO Control Evaluation Study Report that documents facility performance, including a determination of the actual frequency, duration, and volume of discharges from each of the outfalls tributary to the CSO Retention Tunnel Facility. In addition, the Report shall provide a determination of whether the actual facility performance is consistent with the performance prescribed by the approved Basis of Design, including the standard of less than one event per year on average from the CSO outfalls tributary to the CSO Retention Tunnel Facility.

Completion and proper operation of the CSO Retention Tunnel Facility shall be deemed to be equivalent to the Department's presumptive definition of adequate treatment to meet Water Quality Standards at times of discharge provided that the CSO Control Evaluation Study Report and the associated results are approved by the Department. No additional improvements to the system will be required unless it is demonstrated by the Department that discharges from the CSO outfalls tributary to the CSO Retention Tunnel Facility are contributors to

- Water Quality Standards violations in the Rouge River and require additional controls based upon an approved Total Maximum Daily Load, or
- the presence of unacceptable levels of identifiable sanitary trash in the Rouge River resulting from the remaining CSO outfalls.

The Department may require that a Corrective Action Plan be developed and implemented by the permittee, if additional improvements are necessary based upon the results of the CSO Control Evaluation Study or based upon a determination by the Department that Water Quality Standards violations or unacceptable levels of identifiable sanitary trash are occurring in the Rouge River due to discharges from the CSO outfalls tributary to the CSO Retention Tunnel Facility.

The Final Long-term Combined Sewer Overflow Control Program for Outfalls 059-069, Outfalls 072-075, Outfall 077, and Outfall 079 may be reevaluated by the permittee or the Department. This permit may be modified in accordance with applicable laws and rules, to incorporate revisions necessary to conform to pertinent rules or laws, or as necessary to address prevailing situations, such as technical or financial constraints.

3) Long-term CSO Control Program for Detroit River Outfall 082 / Oakwood Pump Station

For untreated combined sewer overflows from Outfall 082 via the Oakwood Pump Station, the permittee shall provide facilities to either eliminate or provide adequate treatment of combined sewage discharges to protect Public Health. The permittee shall implement the Final Long-term Combined Sewer Overflow Control Program for Outfall 082, the Oakwood Pump Station, in accordance with the following schedule.

- a) On or before December 1, 2007, the permittee shall submit approvable final plans and specification for the Oakwood District Collection System.
- b) On or before September 1, 2007, and in accordance with the approved final plans and specifications, the permittee shall commence construction of the CSO control facilities for discharges from Outfall 082.
- c) On or before December 1, 2010, the permittee shall complete construction and place into operation the CSO control facilities for discharges from Outfall 082 and shall be subject to the Retention Treatment Facility Discharge Limitations and Monitoring Requirements contained in the Limitations and monitoring requirements in effect during other periods of discharge contained in Limitations and monitoring requirements in effect during other periods of discharge contained in Part I.A.5. of this permit.
- d) The permittee shall conduct a Project Performance Certification (PPC) Program to certify that the CSO control facilities for discharges from Outfall 082 were constructed in accordance with the approved Basis of Design criteria and the approved plans and specifications. After December 1, 2010, discharges of raw, untreated sewage from Outfall 082 are prohibited. The permittee shall conduct the PPC Program in accordance with the following schedule:

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- (1) On or before October 1, 2010, the permittee shall submit to the Department an approvable PPC Workplan for conducting the PPC Program.
- (2) On or before January 1, 2011, and in accordance with the approved Workplan, the permittee shall commence the PPC Program for the CSO control facilities for discharges from Outfall 082.
- (3) On or before January 1, 2012, the permittee shall complete the PPC Program's twelve-month period of facilities evaluation.
- (4) On or before February 1, 2012, the permittee shall submit a PPC Evaluation Report. The PPC Evaluation Report shall demonstrate whether the CSO control facilities for discharges from Outfall 082 were constructed in accordance with the approved Basis of Design criteria and the approved plans and specifications.

This permit may be modified to include appropriate effluent monitoring requirements for outfalls which will discharge treated CSO from these projects.

4) Long-term CSO Control Program for Outfall 001, Outfall 002, and Outfall 003 / Conner Creek CSO RTB
The permittee has constructed a 27 million gallon (approx.) retention/treatment facility, the Conner Creek CSO Retention Treatment Basin (Monitoring Point 104A/Outfall 104), which shall provide settling, skimming, and disinfection of all combined sewage transported from Outfall 001, Outfall 002, and Outfall 003. The facility is considered a "Detroit CSO Pilot Project" and is designed to provide for 5 minutes of detention at the 10-year, 1-hour storm event. The design shall consider the possibility of future additional CSO control. The permittee shall complete the performance evaluation of this Pilot Project in accordance with the following.

- a) On or before October 1, 2007, the permittee shall submit to the Department for comment a draft Detroit CSO Pilot Project Evaluation Report for the Conner Creek CSO RTB.
- b) On or before March 1, 2008, the permittee shall submit to the Department an approvable final Detroit CSO Pilot Project Evaluation Report for the Conner Creek CSO RTB.

5) Long-term CSO Control Program for Detroit River Outfall 010, Outfall 013, and Outfall 015
For discharges from Combined Sewer Overflow (CSO) Outfall 010, Outfall 013, and Outfall 015 to the Detroit River, the permittee has constructed "screening and disinfection facilities" in order to provide for adequate treatment to comply with requirements for protection of public health. In addition, these facilities may be adequate to meet Water Quality Standards at times of discharge. These facilities, the Leib Screening & Disinfection Facility and the St. Aubin Screening & Disinfection Facility, are subject to the effluent limitations and monitoring requirements of Part I.A.6. In addition, these facilities are considered "Detroit CSO Pilot Projects", and the permittee is required to perform an evaluation of these facilities' ability to screen and disinfect all CSO discharges to the Detroit River. The permittee has submitted the Detroit CSO Pilot Project Evaluation Reports for these facilities.

6) Long-term CSO Control Program for Detroit River Outfall 083 / Belle Isle Pump Station
For untreated combined sewer overflows from Outfall 083, the Belle Isle Pump Station, the permittee shall provide facilities to either eliminate or provide adequate treatment of combined sewage discharges to comply with Water Quality Standards at times of discharge. The permittee shall implement the Final Long-term Combined Sewer Overflow Control Program for Outfall 083, the Belle Isle Pump Station, in accordance with the following schedule.

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- a) On or before March 1, 2008, the permittee shall complete construction and place into operation the CSO control facilities for discharges from Outfall 083. If the CSO Control Facilities for discharges from Outfall 083 are treatment facilities (vs. facilities designed to eliminate the discharges), then these combined sewage discharges shall be subject to the Retention Treatment Facility Discharge Limitations and Monitoring Requirements contained in Part I.A.5. After March 1, 2008, discharges of raw, untreated sewage from Outfall 083 are prohibited. In addition, this permit may be modified to include appropriate effluent monitoring requirements for outfalls which will discharge treated CSO from these projects.
- b) The permittee shall conduct a Project Performance Certification (PPC) Program to certify that the CSO control facilities for discharges from Outfall 083 were constructed in accordance with the approved Basis of Design criteria and the approved plans and specifications. The permittee shall conduct the PPC Program in accordance with the following schedule:
 - (1) On or before January 1, 2008, the permittee shall submit to the Department an approvable PPC Workplan for conducting the PPC Program.
 - (2) On or before April 1, 2008, and in accordance with the approved Workplan, the permittee shall commence the PPC Program for the CSO control facilities for discharges from Outfall 083.
 - (3) On or before April 1, 2009, the permittee shall complete the PPC Program's twelve-month period of facilities evaluation.
 - (4) On or before May 1, 2009, the permittee shall submit a PPC Evaluation Report. The PPC Evaluation Report shall demonstrate whether the CSO control facilities for discharges from Outfall 083 were constructed in accordance with the approved Basis of Design criteria and the approved plans and specifications.
- 7) System-wide CSO Projects and Collection System Improvements
 - a) Control Improvements

On or before October 1 of each year, the permittee shall submit annual reports that supply the documentation of rainfall, and the frequency and duration of all discharge events during the previous 12 month period (from July 1 of the previous year through June 30 of the current year).
 - b) Collection System Rehabilitation

As part of the City of Detroit's overall Combined Sewer Overflow Control Program submitted on July 1, 1996, the permittee is currently implementing a program for collection system rehabilitation.

Annually, on or before October 1, the permittee shall submit a list and description of the collection system rehabilitation projects that are planned for the following calendar year. If comments are not provided by the Department within 60 days of receipt, the annual list is automatically approved.
- 8) Amended Long-term CSO Control Program

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a) Amendment Rouge

On or before December 1, 2008, an approvable Amended Long-term CSO Control Plan for the Rouge River (“Amendment Rouge”) shall be submitted to the Department for review and approval. Amendment Rouge shall address outfalls which discharge treated CSO from projects designed to adequately treat or eliminate Outfalls 059-069, Outfalls 072-075, Outfall 077, Outfall 079 and Outfall 082, and for the Retention Treatment Basin (RTB) Outfalls 101, 102 and 103, and Baby Creek Screening & Disinfection Facilities Outfall 107. Amendment Rouge shall consider the results from past studies and evaluations (e.g. the Rouge River CSO RTB Evaluation Studies, and the Rain Water Control Pilot Study, etc.), as well as necessary water quality evaluations and monitoring (plus any pertinent additional information) to support a determination of the facilities needed to adequately treat or eliminate CSOs to comply with water quality standards at the time of discharge (Phase III). Phase II requirements for Outfalls 051-054 and Outfall 056 are to be met by August 1, 2012. Phase II requirements for Outfall 082 are to be met by December 1, 2010. The permittee may choose to modify these planned Phase II facilities to meet Phase III requirements based on predicted results developed for this amendment. Any additional facilities needed to meet Phase III shall include fixed date milestones for maximum feasible progress (taking into account site-specific economic and technical constraints) and an evaluation of financial mechanisms.

b) Amendment Detroit

On or before December 1, 2008, an approvable Amended Long-term CSO Control Plan (“Amendment Detroit”) shall be submitted to the Department for review and approval. Amendment Detroit shall address the Detroit River Outfalls 004-009, Outfalls 011-012, Outfall 014, Outfalls 016-044, Outfall 080 and Belle Isle Outfall 083, Old Channel Rouge River Outfalls 046-048, Conner Creek Retention Treatment Basin Outfall 104, Leib Screening & Disinfection Facility Outfall 105 and St. Aubin Screening & Disinfection Facility Outfall 106. Amendment Detroit shall consider the results from the Detroit CSO Pilot Project Evaluations (following approval), as well as a detailed evaluation along the Detroit River and Old Channel of the Rouge River which updates designated use concerns due to CSOs. Amendment Detroit shall describe the program needed to adequately treat or eliminate CSOs to comply with water quality standards at the time of discharge (as agreed to in Detroit Mayor Archer’s March 3, 1997 letter to Director Harding of the Department).

Following implementation of any phase of any of the approved Control Programs contained in Part I.A.11.e. of this permit, the Control Program(s) may be reevaluated by the permittee or the Department. This permit may be modified in accordance with applicable laws and rules, to incorporate revisions necessary to conform to pertinent rules or laws, or as necessary to address prevailing situations, such as technical or financial constraints.

e. Collection System and CSO Treatment Facilities Operational Plan

The permittee shall continue implementation of the Detroit Water and Sewerage Department’s approved Collection System and CSO Treatment Facilities Operational Plan (Operational Plan). The implementation of the Operational Plan shall be coordinated with the Wastewater Treatment Plant Wet Weather Operational Plan that is required for development and implementation in accordance with Part I.A.8. of this permit.

Any changes to the Operational Plan which affect the rate, volume, or characteristics of the discharge, or the system storage and transportation for conveyance of wet weather flows, shall be submitted to the Department and approved prior to implementation. Annually, on or before October 1, the permittee shall submit a revised Operational Plan, which incorporates all changes made to the plan during the last year. The operational plan shall define the hydraulic design constraints of the system during both dry and wet weather operation. In addition, each annual submittal of the Operational Plan shall include operational data from the previous twelve month period for the permittee’s in-service CSO Retention Treatment Basins (RTBs) including:

- the recorded values of the stored sodium hypochlorite (NaOCl) disinfectant strength at the permittee’s CSO RTBs and screening/disinfection facilities (see Part I.A.11.f.2), below),
- the recorded values of the strength of the chemical loads of sodium hypochlorite delivered to the permittee’s CSO RTBs and screening/disinfection facilities (see Part I.A.11.f.3), below), and
- the operational modes for the RTBs and screening/disinfection facilities (i.e., first-flush cell operation, parallel cell mode of operation, etc.) utilized during the previous twelve months.

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The plan shall include:

- 1) the procedures utilized at the permittee's CSO RTBs and screening/disinfection facilities for adjustment of sodium hypochlorite disinfectant feed rates to minimize the discharge of total residual chlorine;
- 2) the procedures and schedule for sampling/monitoring the stored sodium hypochlorite disinfectant at the permittee's CSO RTBs and screening/disinfection facilities to determine the concentration of available chlorine and assure that the stored sodium hypochlorite is of sufficient strength to provide effective disinfection;
- 3) the procedures for sampling/monitoring the available chlorine concentration of each load of sodium hypochlorite delivered to the permittee's CSO RTBs and screening/disinfection facilities;
- 4) if applicable, the procedures utilized at the permittee's CSO RTBs and screening/disinfection facilities for adjustment of dehalogenating reagent feed rates to minimize the discharge of excess reagent;
- 5) the procedures to ensure that the collection and treatment systems are operated to maximize treatment;
- 6) the procedures to ensure that all dry weather flows are conveyed to the treatment facilities for treatment without bypass;
- 7) the hydraulic profile and hydraulic operational elevations for system pump stations, regulators, diversion devices, gates, level sensors, interceptors, etc. to ensure the conveyance of all dry weather flows to the treatment facilities for treatment without bypass;
- 8) the procedures to ensure that the sewerage system hydraulic and storage capacity is identified and fully utilized during wet weather events with eventual treatment of stored flows;
- 9) the procedures to ensure that the greatest quantity of wet weather flow is conveyed to the treatment facilities for treatment to minimize untreated wastewater discharges within the region tributary to the Detroit Wastewater Treatment Plant;
- 10) the hydraulic profile and hydraulic operational elevations for system pump stations, regulators, diversion devices, gates, level sensors, interceptors, etc., to ensure that the greatest quantity of wet weather flow is conveyed to the treatment facilities for treatment to minimize combined sewage discharges;
- 11) the procedures for ongoing inspection of the sewer system within the permittees jurisdiction for excessive inflow and infiltration and where necessary, reduction of the excessive infiltration and inflow sources, and the elimination of unauthorized sewer system connections; and
- 12) identification of the location of the rain gauges.

The permittee shall continue to pursue the coordination of operational plans with tributary communities with the intent of maximizing flow conveyance to the Detroit Water and Sewerage Department system and minimizing regional CSOs.

The permittee may request that the Department terminate the requirements for reporting the recorded values of the stored sodium hypochlorite (NaOCl) disinfectant strength and the recorded values of the strength of the delivered chemical loads of sodium hypochlorite, if adequate disinfection has been achieved at the CSO RTB(s) and/or screening/disinfection facilities and monitoring has shown that the stored sodium hypochlorite (NaOCl) disinfectant is consistently of sufficient strength to provide adequate disinfection.

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f. New Wastewater Flows

Increased levels of discharge of sanitary sewage from the combined sewer overflow outfalls listed in Part I.A.11.a., the Detroit Water and Sewerage Department's CSO Retention Treatment Basins (see Part I.A.5. of this permit), and the Detroit Water and Sewerage Department's CSO Screening & Disinfection Facilities Basins (see Part I.A.6. of this permit) are prohibited unless:

- 1) these increased discharges are the result of new sanitary wastewater flows which, on the basis of sound professional judgment, are within design peak dry weather transportation capacity; or
- 2) the permittee has officially adopted and is timely implementing a definite program, satisfactory to the Department, leading to the construction and operation of necessary collection, transportation or treatment devices.

12. Untreated or Partially Treated Sewage Discharge Requirements

In accordance with Section 324.3112a of the Michigan Act, if untreated sewage, including sanitary sewer overflows (SSO) and combined sewer overflows (CSO), or partially treated sewage is directly or indirectly discharged from a sewer system onto land or into the waters of the state, the entity responsible for the sewer system shall immediately, but not more than 24 hours after the discharge begins, notify, by telephone, the Department, local health departments, a daily newspaper of general circulation in the county in which the permittee is located, and a daily newspaper of general circulation in the county or counties in which the municipalities whose waters may be affected by the discharge are located that the discharge is occurring.

The permittee shall also annually contact municipalities, including the superintendent of a public drinking water supply with potentially affected intakes, whose waters may be affected by the permittee's discharge of combined sewage, and if those municipalities wish to be notified in the same manner as specified above, the permittee shall provide such notification. Such notification shall also include a daily newspaper in the county of the affected municipality.

At the conclusion of the discharge, written notification shall be submitted in accordance with and on the "CSO/SSO Reporting Form" available via the internet at: http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3715---,00.html, or, alternatively for combined sewer overflow discharges, in accordance with notification procedures approved by the Department.

In addition, in accordance with Section 324.3112a of the Michigan Act, each time a discharge of untreated sewage or partially treated sewage occurs, the permittee shall test the affected waters for *Escherichia coli* to assess the risk to the public health as a result of the discharge and shall provide the test results to the affected local county health departments and to the Department. The testing shall be done at locations specified by each affected local county health department but shall not exceed 10 tests for each separate discharge event. The affected local county health department may waive this testing requirement, if it determines that such testing is not needed to assess the risk to the public health as a result of the discharge event. The results of this testing shall be submitted with the written notification required above, or, if the results are not yet available, submit them as soon as they become available. This testing is not required, if the testing has been waived by the local health department, or if the discharge(s) did not affect surface waters.

Permittees accepting sanitary or municipal sewage from other sewage collection systems are encouraged to notify the owners of those systems of the above reporting and testing requirements.

13. Facility Contact

The "Facility Contact" was specified in the application. The permittee may replace the facility contact at any time, and shall notify the Department in writing within 10 days after replacement (including the name, address and telephone number of the new facility contact).

- a. The facility contact shall be (or a duly authorized representative of this person):
- for a corporation, a principal executive officer of at least the level of vice president, or a designated representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the permit application or other NPDES form originates,
 - for a partnership, a general partner,
 - for a sole proprietorship, the proprietor, or

PART I

Section A. Limitations and Monitoring Requirements

- for a municipal, state, or other public facility, either a principal executive officer, the mayor, village president, city or village manager or other duly authorized employee.
- b. A person is a duly authorized representative only if:
- the authorization is made in writing to the Department by a person described in paragraph a. of this section; and
 - the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the facility (a duly authorized representative may thus be either a named individual or any individual occupying a named position).

Nothing in this section obviates the permittee from properly submitting reports and forms as required by law.

14. Monthly Operating Reports

Part 41 of Act 451 of 1994 as amended, specifically Section 324.4106 and associated Rule 299.2953, requires that the permittee file with the Department, on forms prescribed by the Department, reports showing the effectiveness of the treatment facility operation and the quantity and quality of liquid wastes discharged into waters of the state.

Within thirty (30) days of the effective date of this permit the permittee shall submit to the Department a treatment facility monitoring program to meet this requirement. Upon approval by the Department the permittee shall implement the treatment facility monitoring program. The reporting forms and guidance are available on the DEQ web site at http://www.michigan.gov/deq/0,1607,7-135-3313_44117---,00.html. These forms shall be maintained on site and shall be provided to the Department for review upon request. These treatment facility monitoring records shall be maintained for a minimum of five years.

PART I**Section B. Industrial Waste Pretreatment Program****1. Federal Industrial Pretreatment Program**

- a. The permittee shall implement the Federal Industrial Pretreatment Program approved on June 26, 1997, and modifications approved by the Department thereafter. Approval of substantial program modifications after the issuance of this permit shall be incorporated into this permit by minor modification in accordance with 40 CFR 122.63.
- b. The permittee shall comply with Rules 323.2301 through 323.2317 of the Michigan Administrative Code (Part 23 Rules), the General Pretreatment Regulations for Existing and New Sources of Pollution (40 CFR Part 403), and the approved Federal Industrial Pretreatment Program.
- c. The permittee has adopted and shall maintain the legal authority and necessary interjurisdictional agreements (or delegation agreements) that provide the basis for the implementation and enforcement of the approved Federal Industrial Pretreatment Program throughout the service area. The legal authority and necessary interjurisdictional agreements (or delegation agreements) shall include, at a minimum, the authority to carry out the activities specified in Rule 323.2306(a).
- d. The permittee has developed and shall continue to maintain procedures which enable implementation of the approved Federal Industrial Pretreatment Program, 40 CFR Part 403, and the Part 23 Rules in accordance with Rule 323.2306(c).
- e. It is recognized that the permittee has been delegated by the Department Director the enforcement authority contained in Section 3115 of Act 451. The permittee shall comply with the terms of that agreement and, commencing on April 1, 2004 and every year thereafter, submit a report in accordance with the Appointment of Enforcement Authority dated December 23, 2002. Under this delegated authority the permittee may seek or assess civil penalties in at least the amount of \$1,000 a day for each violation by the Industrial Users of Pretreatment Standards and Requirements. The agreement describes the conditions and criteria for use. (This delegated authority is independent of that available through the local Ordinance.)
- f. The permittee has developed and shall continue to utilize its legal authority to prohibit discharges that:
 - 1) cause, in whole or in part, the permittee's failure to comply with any condition of this permit or the Michigan Act;
 - 2) restrict, in whole or in part, the permittee's management of biosolids;
 - 3) cause, in whole or in part, operational problems at the treatment facility or in its collection system;
 - 4) violate any of the general or specific prohibitions identified in Rule 323.2303(1) and (2);
 - 5) violate categorical standards identified in Rule 323.2311; and
 - 6) violate local limits established in accordance with Rule 323.2303(4).
- g. The permittee shall maintain a list of its nondomestic users that meet the criteria of a significant industrial user as identified in Rule 323.2302(cc).
- h. The permittee has developed and shall continue to implement an enforcement response plan which will enable the permittee to enforce the approved Federal Industrial Pretreatment Program, 40 CFR Part 403, and the Part 23 Rules in accordance with Rule 323.2306(g).
- i. The permittee shall not implement changes or modifications to the approved Federal Industrial Pretreatment Program without notification to the Department. Any substantial modification shall be subject to Department public noticing and approval in accordance with Rule 323.2309.

PART I**Section B. Industrial Waste Pretreatment Program**

- j. The permittee shall maintain sufficient resources and qualified personnel to implement the approved Federal Industrial Pretreatment Program.
- k. The permittee shall develop and maintain, for a minimum of three (3) years, all records and information necessary to determine nondomestic user compliance with 40 CFR Part 403, Part 23 Rules and the approved Federal Industrial Pretreatment Program. This period of retention shall be extended during the course of any unresolved enforcement action or litigation regarding a nondomestic user or when requested by the Department or the United States Environmental Protection Agency. All of the aforementioned records and information shall be made available upon request for inspection and copying by the Department and the United States Environmental Protection Agency.
- l. The permittee shall evaluate the approved Federal Industrial Pretreatment Program for compliance with the 40 CFR Part 403, Part 23 Rules and the prohibitions stated in item f. (above). Based upon this evaluation, the permittee shall propose to the Department all necessary changes or modifications to the approved Federal Industrial Pretreatment Program in accordance with Rule 323.2309.
- m. On or before April 1st of each year, the permittee shall submit to the Department, as required by Rule 323.2310(8), an Industrial Pretreatment Program Annual Report on the status of program implementation and enforcement activities. The reporting period shall begin on January 1st and end on December 31st. At a minimum, the Industrial Pretreatment Program Annual Report shall contain the following items:
 - 1) additions, deletions, and any other modifications to the permittee's previously submitted nondomestic user inventory (Rule 323.2306(c)(i));
 - 2) additions, deletions, and any other modifications to the permittee's approved Significant Industrial User List (Rule 323.2306(h));
 - 3) a listing of the names of Significant Industrial Users not inspected by the permittee at least once during the reporting period or at the frequency committed to in the approved Federal Industrial Pretreatment Program;
 - 4) a listing of the names of Significant Industrial Users not sampled for all required pollutants by the permittee at least once during the reporting period or at the frequency committed to in the approved Federal Industrial Pretreatment Program;
 - 5) a listing of the names of Significant Industrial Users without a permit at any time during the reporting period;
 - 6) a listing of the names of nondomestic industrial users in significant noncompliance for each of the criteria as defined in Rule 323.2302(dd)(i)-(viii);
 - 7) proof of publication of all nondomestic users in significant noncompliance in the largest daily newspaper in the permittee's area;
 - 8) a summary of the enforcement activities by the permittee during the report period. This Summary shall include:
 - a) a listing of the names of nondomestic users which were the subject of an enforcement action;
 - b) the enforcement action taken and the date the action was taken; and
 - c) whether the nondomestic user returned to compliance by the end of the reporting period (include date nondomestic user returned to compliance).

PART I

Section B. Industrial Waste Pretreatment Program

- 9) a listing of the names of Significant Industrial Users who did not submit pretreatment reports in accordance with requirements specified in their permit during the reporting period;
 - 10) a listing of the names of Significant Industrial Users who did not self-monitor in accordance with requirements specified in their permit during the reporting period; and
 - 11) any other relevant information as requested by the Department.
- n. With the Annual Report submitted by the permittee at the end of each Detroit Water and Sewerage Department fiscal year, the permittee shall submit to the Department the results of analyses for all locally limited parameters for at least one monitoring event that tests influent, effluent, and biosolids during the reporting period.
- o. For purposes of monitoring associated with the Federal Industrial Pretreatment Program, the permittee shall use sampling and analytical procedures in accordance with 40 CFR Part 136. The permittee may, at its discretion, use either Method 1631 or Method 245.1 for the analysis of total mercury as it deems appropriate.

2. Schedule for Technically-Based Local Limits

The permittee shall develop and enforce local limits to implement the prohibitions listed in Part I.B.1.f. Local limits shall be based upon data representative of actual conditions demonstrated in a maximum allowable headworks loading analysis. An evaluation of whether the existing local limits need to be revised shall be submitted to the Department by June 1, 2011. The submittal shall provide a technical evaluation of the basis upon which this determination was made which includes information regarding the maximum allowable headworks loading, collection system protection criteria, and worker health and safety, based upon representative, recent data collected in the previous five years.

The following pollutants shall be evaluated:

- Arsenic, Cadmium, Chromium, Copper, Cyanide, Lead, Mercury, Nickel, Silver, and Zinc;
- Pollutants that are subject to limits in this permit;
- Pollutants that have an existing local limit; and
- Other pollutants of concern which the Department and/or the permittee would reasonably expect to be discharged into the wastewater treatment plant.

3. Schedule for Notification to Contributing Jurisdictions

On or before May 1 and November 1 of each year, the permittee shall submit to the Department a report demonstrating the efforts and progress toward achieving the requirement of having all contributing jurisdictions adopt a legal authority that is equivalent to or more restrictive than the permittee's, including the revised local limits to be incorporated by the permittee as result of the requirements of Part I.B.2. of this permit. This legal authority includes the provisions of Ordinance 08-05 (Detroit City Code Chapter 56, Article III. Division 3) and subsequent revisions to the local limits. These progress reports shall be submitted every six months until the requirement is achieved. The biannual progress reports shall contain:

- a. a listing of all contributing jurisdictions;
- b. the status of each contributing jurisdiction's adoption of adequate legal authority; and
- c. for contributing jurisdictions who have not yet adopted adequate legal authority, a description of the steps/actions the permittee has taken to assure progress toward the contributing jurisdiction's adoption of adequate legal authority.

The permittee shall, to the best of its ability, work with those contributing jurisdictions who have not yet adopted adequate legal authority by January 1, 2008, to obtain such legal authority.

PART I**Section C. Residuals Management Program****1. Residuals Management Program for Land Application of Biosolids**

A permittee seeking authorization to land apply bulk biosolids or prepare bulk biosolids for land application shall develop and submit a Residuals Management Program (RMP) to the Department for approval. Effective upon Department approval of the permittee's RMP, the permittee is authorized to land apply bulk biosolids or prepare bulk biosolids for land application in accordance with the requirements established in R323.2401 through R323.2418 of the Michigan Administrative Code (Part 24 Rules) which can be obtained via the internet (<http://www.michigan.gov/deq/> and on the left side of the screen click on Water, Biosolids & Industrial Pretreatment, Biosolids then click on Biosolids laws and Rules Information which is under the Laws & Rules banner in the center of the screen). The permittee's approved RMP, and any approved modifications thereto, are enforceable requirements of this permit. Incineration, landfilling and other residual disposal activities shall be conducted in accordance with Part II.D.7. of this permit.

a. **RMP Approval and Implementation**

A permittee seeking approval of an RMP shall submit the RMP to the Department at least 180 days prior to the land application of biosolids. The permittee may utilize the RMP Electronic Form which can be obtained via the internet (<http://www.michigan.gov/deq/> and on the left side of the screen click on Water, Biosolids & Industrial Pretreatment, Biosolids then click on RMP Electronic Form which is under the Downloads banner in the center of the screen) or obtain detailed requirements from the Department. The RMP shall become effective and shall be implemented by the permittee upon written approval by the Department.

b. **Annual Report**

On or before October 30 of each year, the permittee shall submit to the Department an annual report for the previous fiscal year of October 1 through September 30. At a minimum, the report shall contain:

1) a certification that current residuals management practices are in accordance with the approved RMP, or a proposal for modification to the approved RMP; and

2) a completed Biosolids Annual Report Form which can be obtained via the internet (<http://www.michigan.gov/deq/> and on the left side of the screen click on Water, Biosolids & Industrial Pretreatment, Biosolids then click on Biosolids Annual Report Form which is under the Downloads banner in the center of the screen) or from the Department.

c. **Modifications to the Approved RMP**

Prior to implementation of modifications to the RMP, the permittee shall submit proposed modifications to the Department for approval. The approved modification shall become effective upon the date of approval. Upon written notification, the Department may impose additional requirements and/or limitations to the approved RMP as necessary to protect public health and the environment from any adverse effect of a pollutant in the biosolids.

d. **Recordkeeping**

Records required by the Part 24 Rules shall be kept for a minimum of five years. However, the records documenting cumulative loading for sites subject to cumulative pollutant loading rates shall be kept as long as the site receives biosolids.

PART II

Section A. Definitions

This list of definitions may include terms not applicable to this permit.

Acute toxic unit (TU_a) means $100/LC_{50}$ where the LC_{50} is determined from a whole effluent toxicity (WET) test which produces a result that is statistically or graphically estimated to be lethal to 50% of the test organisms.

Bioaccumulative chemical of concern (BCC) means a chemical which, upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor of more than 1000 after considering metabolism and other physiochemical properties that might enhance or inhibit bioaccumulation. The human health bioaccumulation factor shall be derived according to R 323.1057(5). Chemicals with half-lives of less than 8 weeks in the water column, sediment, and biota are not BCCs. The minimum bioaccumulation concentration factor (BAF) information needed to define an organic chemical as a BCC is either a field-measured BAF or a BAF derived using the biota-sediment accumulation factor (BSAF) methodology. The minimum BAF information needed to define an inorganic chemical as a BCC, including an organometal, is either a field-measured BAF or a laboratory-measured bioconcentration factor (BCF). The BCCs to which these rules apply are identified in Table 5 of R 323.1057 of the Water Quality Standards.

Biosolids are the solid, semisolid, or liquid residues generated during the treatment of sanitary sewage or domestic sewage in a treatment works. This includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes and a derivative of the removed scum or solids.

Bulk biosolids means biosolids that are not sold or given away in a bag or other container for application to a lawn or home garden.

Chronic toxic unit (TU_c) means $100/MATC$ or $100/IC_{25}$, where the maximum acceptable toxicant concentration (MATC) and IC_{25} are expressed as a percent effluent in the test medium.

Class B Biosolids refers to material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PSRP) in accordance with the Part 24 Rules. Processes include aerobic digestion, composting, anaerobic digestion, lime stabilization and air drying.

Daily concentration is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the quantification limit, regard that value as zero when calculating the daily concentration. The daily concentration will be used to determine compliance with any maximum and minimum daily concentration limitations (except for pH and dissolved oxygen). When required by the permit, report the maximum calculated daily concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the Discharge Monitoring Reports (DMRs).

For pH, report the maximum value of any individual sample taken during the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs and the minimum value of any individual sample taken during the month in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. For dissolved oxygen, report the minimum concentration of any individual sample in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Daily loading is the total discharge by weight of a parameter discharged during any calendar day. This value is calculated by multiplying the daily concentration by the total daily flow and by the appropriate conversion factor. The daily loading will be used to determine compliance with any maximum daily loading limitations. When required by the permit, report the maximum calculated daily loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

Department means the Michigan Department of Environmental Quality.

Detection Level means the lowest concentration or amount of the target analyte that can be determined to be different from zero by a single measurement at a stated level of probability.

EC₅₀ means a statistically or graphically estimated concentration that is expected to cause 1 or more specified effects in 50% of a group of organisms under specified conditions.

PART II

Section A. Definitions

Fecal coliform bacteria monthly is the geometric mean of the samples collected in a calendar month (or 30 consecutive days). The calculated monthly value will be used to determine compliance with the maximum monthly fecal coliform bacteria limitations. When required by the permit, report the calculated monthly value in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs.

Fecal coliform bacteria 7-day is the geometric mean of the samples collected in any 7-day period. The calculated 7-day value will be used to determine compliance with the maximum 7-day fecal coliform bacteria limitations. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Flow Proportioned sample is a composite sample with the sample volume proportional to the effluent flow.

Grab sample is a single sample taken at neither a set time nor flow.

IC₂₅ means the toxicant concentration that would cause a 25% reduction in a nonquantal biological measurement for the test population.

Interference is a discharge which, alone or in conjunction with a discharge or discharges from other sources, both: 1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and 2) therefore, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or, of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act. [This definition does not apply to sample matrix interference.]

Land Application means spraying or spreading biosolids or a biosolids derivative onto the land surface, injecting below the land surface, or incorporating into the soil so that the biosolids or biosolids derivative can either condition the soil or fertilize crops or vegetation grown in the soil.

LC₅₀ means a statistically or graphically estimated concentration that is expected to be lethal to 50% of a group of organisms under specified conditions.

Maximum acceptable toxicant concentration (MATC) means the concentration obtained by calculating the geometric mean of the lower and upper chronic limits from a chronic test. A lower chronic limit is the highest tested concentration that did not cause the occurrence of a specific adverse effect. An upper chronic limit is the lowest tested concentration which did cause the occurrence of a specific adverse effect and above which all tested concentrations caused such an occurrence.

MGD means million gallons per day.

Monthly frequency of analysis refers to a calendar month. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

Monthly concentration is the sum of the daily concentrations determined during a reporting month (or 30 consecutive days) divided by the number of daily concentrations determined. The monthly concentration for Monitoring Points 049A, 050A, and 084A is the running average concentration of the last 30 days in which a discharge occurred through the primary effluent conduit. The calculated monthly concentration will be used to determine compliance with any maximum monthly concentration limitations. When required by the permit, report the calculated monthly concentration in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs.

For minimum percent removal requirements, the monthly influent concentration and the monthly effluent concentration shall be determined. The calculated monthly percent removal, which is equal to 100 times the quantity [1 minus the quantity (monthly effluent concentration divided by the monthly influent concentration)], shall be reported in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

PART II

Section A. Definitions

Monthly loading is the sum of the daily loadings of a parameter divided by the number of daily loadings determined in the reporting month (or 30 consecutive days). The calculated monthly loading will be used to determine compliance with any maximum monthly loading limitations. When required by the permit, report the calculated monthly loading in the "AVERAGE" column under "QUANTITY OR LOADING" on the DMRs.

National Pretreatment Standards are the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Federal Act. The standards establish nationwide limits for specific industrial categories for discharge to a POTW.

NOAEL means the highest tested dose or concentration of a substance that results in no observed adverse effect in exposed test organisms where higher doses or concentrations result in an adverse effect.

Noncontact Cooling Water is water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product or finished product.

Nondomestic user is any discharger to a POTW that discharges wastes other than or in addition to water-carried wastes from toilet, kitchen, laundry, bathing or other facilities used for household purposes.

Pretreatment is reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.

POTW is a publicly owned treatment works.

Quantification level means the measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calculated at a specified concentration above the detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant.

Quarterly frequency of analysis refers to a three month period, defined as January through March, April through June, July through September, and October through December. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

Regional Administrator is the Region 5 Administrator, U.S. EPA, located at R-19J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

Significant industrial user is a nondomestic user that: 1) is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or 2) discharges an average of 25,000 gallons per day or more of process wastewater to a POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the permittee as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's treatment plant operation or violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Tier I value means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier I toxicity database.

Tier II value means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier II toxicity database.

Toxicity Reduction Evaluation (TRE) means a site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity.

PART II

Section A. Definitions

Water Quality Standards means the Part 4 Water Quality Standards promulgated pursuant to Part 31 of Act No. 451 of the Public Acts of 1994, as amended, being Rules 323.1041 through 323.1117 of the Michigan Administrative Code.

Weekly frequency of analysis refers to a calendar week which begins on Sunday and ends on Saturday. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

Wet Weather Flow is the wastewater flow (domestic, industrial, commercial and institutional) including infiltration and inflow that occurs as the result of a precipitation or snowmelt event.

Wet Weather Event, for the interim period, is defined as those days on which an average 0.10 inches or more of precipitation was recorded by six strategically located rainfall gauges (as defined in Part I.9.c.(10) of the Operational Plan) in the Detroit Wastewater Treatment Plant's service area, plus two days immediately following days of 0.10 inch to 1.00 inch days of precipitation or three days following days of 1.00 inch or more precipitation. Rainfall days are further limited to those days in which the air temperature exceeds 32° F (0° C) for at least an eight hour period. The permittee may demonstrate that certain events such as snowmelt, and other unforeseen events will be considered rainfall days.

The above definition of wet weather event is not adequate on a long term basis, or for the purposes of planning, designing, or implementing the combined sewer overflow improvements required in this permit. For purposes of planning and designing future CSO improvements, the permittee shall consider the effect of dewatering tributary storage basins on overall system recovery, both at the wastewater plant and CSO overflow points in the collection system.

Upon approval of the Department, an alternate "wet weather event" definition may be used.

Yearly frequency of analysis refers to a calendar year beginning on January 1 and ending on December 31. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

24-Hour Composite sample is a flow or time proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period.

In accordance with a Department approved Wastewater Treatment Plant Wet Weather Operational Plan (see Part I.A.8.), alternate requirements for 24-Hour Composite sampling may be utilized to satisfy the monitoring requirements of this permit.

3-Portion Composite sample is a sample consisting of three equal volume grab samples collected at equal intervals over an 8-hour period.

7-day concentration is the sum of the daily concentrations determined during any 7 consecutive days in a reporting month divided by the number of daily concentrations determined. The calculated 7-day concentration will be used to determine compliance with any maximum 7-day concentration limitations. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

7-day loading is the sum of the daily loadings of a parameter divided by the number of daily loadings determined during any 7 consecutive days in a reporting month. The calculated 7-day loading will be used to determine compliance with any maximum 7-day loading limitations. When required by the permit, report the maximum calculated 7-day loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

PART II

Section B. Monitoring Procedures

1. Representative Samples

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants), unless specified otherwise in this permit. Requests to use test procedures not promulgated under 40 CFR Part 136 for pollutant monitoring required by this permit shall be made in accordance with the Alternate Test Procedures regulations specified in 40 CFR 136.4. These requests shall be submitted to the Chief of the Permits Section, Water Bureau, Michigan Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan, 48909-7773. The permittee may use such procedures upon approval.

The permittee shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

3. Instrumentation

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

4. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Department.

PART II

Section C. Reporting Requirements

1. Start-up Notification

If the permittee will not discharge during the first 60 days following the effective date of this permit, the permittee shall notify the Department within 14 days following the effective date of this permit, and then 60 days prior to the commencement of the discharge.

2. Submittal Requirements for Self-Monitoring Data

Part 31 of Act 451 of 1994, as amended, specifically Section 324.3110(3) and Rule 323.2155(2) of Part 21 allows the Department to specify the forms to be utilized for reporting the required self-monitoring data. Unless instructed on the effluent limitations page to conduct "Retained Self Monitoring" the permittee shall submit self-monitoring data via the Michigan DEQ Electronic Environmental Discharge Monitoring Reporting (*e2-DMR*) system.

The permittee shall utilize the information provided on the *e2-Reporting* website @ <http://secure1.state.mi.us/e2rs/> to access and submit the electronic forms. Both monthly summary and daily data shall be submitted to the department no later than the **20th day of the month** following each month of the authorized discharge period(s).

3. Retained Self-Monitoring Requirements

If instructed on the effluent limits page to conduct retained self-monitoring, the permittee shall maintain a year-to-date log of retained self-monitoring results and, upon request, provide such log for inspection to the staff of the Water Bureau, Michigan Department of Environmental Quality (in the case of hospitals, nursing homes and extended care facilities, to the staff of the Division of Health Facilities and Services, Michigan Department of Consumer and Industry Services). Retained self-monitoring results are public information and shall be promptly provided to the public upon request.

The permittee shall certify, in writing, to the Department, on or before January 10th of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the application on which this permit is based still accurately describes the discharge.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

Monitoring required pursuant to Part 41 of the Michigan Act or Rule 35 of the Mobile Home Park Commission Act (Act 96 of the Public Acts of 1987) for assurance of proper facility operation shall be submitted as required by the Department.

5. Compliance Dates Notification

Within 14 days of every compliance date specified in this permit, the permittee shall submit a written notification to the Department indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the permittee to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the permittee accomplishes this, a separate written notification is not required.

PART II

Section C. Reporting Requirements

6. Noncompliance Notification

Compliance with all applicable requirements set forth in the Federal Act, Parts 31 and 41 of the Michigan Act, and related regulations and rules is required. All instances of noncompliance shall be reported as follows:

- a. 24-hour reporting - Any noncompliance which may endanger health or the environment (including maximum daily concentration discharge limitation exceedances) shall be reported, verbally, within 24 hours from the time the permittee becomes aware of the noncompliance. A written submission shall also be provided within five (5) days.
- b. other reporting - The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring, within five (5) days from the time the permittee becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and cause of noncompliance; and 2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

7. Spill Notification

The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwaters of the state, unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code), by calling the Department at the number indicated on the first page of this permit, or if the notice is provided after regular working hours call the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660).

Within ten (10) days of the release, the permittee shall submit to the Department a full written explanation as to the cause of the release, the discovery of the release, response (clean-up and/or recovery) measures taken, and preventative measures taken or a schedule for completion of measures to be taken to prevent reoccurrence of similar releases.

8. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset, shall notify the Department by telephone within 24-hours of becoming aware of such conditions; and within five (5) days, provide in writing, the following information:

- a. that an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. that the permitted wastewater treatment facility was, at the time, being properly operated; and
- c. that the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this permit.

In any enforcement proceedings, the permittee, seeking to establish the occurrence of an upset, has the burden of proof.

PART II

Section C. Reporting Requirements

9. Bypass Prohibition and Notification

- a. Bypass Prohibition - Bypass is prohibited unless:
 - 1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and
 - 3) the permittee submitted notices as required under 9.b. or 9.c. below.
- b. Notice of Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least ten (10) days before the date of the bypass, and provide information about the anticipated bypass as required by the Department. The Department may approve an anticipated bypass, after considering its adverse effects, if it will meet the three (3) conditions listed in 9.a. above.
- c. Notice of Unanticipated Bypass - The permittee shall submit notice to the Department of an unanticipated bypass by calling the Department at the number indicated on the first page of this permit (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.
- d. Written Report of Bypass - A written submission shall be provided within five (5) working days of commencing any bypass to the Department, and at additional times as directed by the Department. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Department.
- e. Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of 9.a., 9.b., 9.c., and 9.d., above. This provision does not relieve the permittee of any notification responsibilities under Part II.C.10. of this permit.
- f. Definitions
 - 1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
 - 2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

10. Notification of Changes in Discharge

The permittee shall notify the Department, in writing, within 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register, priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, or the Pollutants of Initial Focus in the Great Lakes Water Quality Initiative specified in 40 CFR 132.6, Table 6, which were not acknowledged in the application or listed in the application at less than detectable levels; 2) detectable levels of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information; or 3) any chemical at levels greater than five times the average level reported in the complete application (see the first page of this permit for the date(s) the complete application was submitted). Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the compliance schedules.

PART II

Section C. Reporting Requirements

11. Changes in Facility Operations

Any anticipated action or activity, including but not limited to facility expansion, production increases, or process modification, which will result in new or increased loadings of pollutants to the receiving waters must be reported to the Department by a) submission of an increased use request (application) and all information required under Rule 323.1098 (Antidegradation) of the Water Quality Standards or b) by notice if the following conditions are met: 1) the action or activity will not result in a change in the types of wastewater discharged or result in a greater quantity of wastewater than currently authorized by this permit; 2) the action or activity will not result in violations of the effluent limitations specified in this permit; 3) the action or activity is not prohibited by the requirements of Part II.C.12.; and 4) the action or activity will not require notification pursuant to Part II.C.10. Following such notice, the permit may be modified according to applicable laws and rules to specify and limit any pollutant not previously limited.

12. Bioaccumulative Chemicals of Concern (BCC)

Consistent with the requirements of Rules 323.1098 and 323.1215 of the Michigan Administrative Code, the permittee is prohibited from undertaking any action that would result in a lowering of water quality from an increased loading of a BCC unless an increased use request and antidegradation demonstration have been submitted and approved by the Department.

13. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall submit to the Department 30 days prior to the actual transfer of ownership or control a written agreement between the current permittee and the new permittee containing: 1) the legal name and address of the new owner; 2) a specific date for the effective transfer of permit responsibility, coverage and liability; and 3) a certification of the continuity of or any changes in operations, wastewater discharge, or wastewater treatment.

If the new permittee is proposing changes in operations, wastewater discharge, or wastewater treatment, the Department may propose modification of this permit in accordance with applicable laws and rules.

14. Operations and Maintenance Manual

Part 41 of Act 451 of 1994, as amended, specifically Section 324.4104 and associated Rule 299.2957, allow the Department to require an Operations and Maintenance (O&M) manual for the wastewater treatment facility. An up-to-date copy of the O&M manual shall be kept at the wastewater treatment facility. Upon request a copy of the O&M manual shall be provided to the Department. The Department may review the manual in whole or in part at their discretion and require modifications to it if portions are determined to be inadequate.

At a minimum, the O&M manual should include the following information: permit standards, description and operation information for all equipment, staffing information, laboratory requirements, record keeping requirements, maintenance plan for equipment, emergency operating plan, safety program information and copies of all pertinent forms, as-built plans, and manufacturer's manuals.

Certification of the existence and accuracy of the operations and maintenance manual is required to be submitted to the Department at least sixty days prior to startup of a new wastewater treatment plant. Submittal of re-certifications will also be required sixty days prior to start up of any substantial improvements or modifications made at the wastewater treatment plant.

PART II

Section D. Management Responsibilities

1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit constitutes a violation of the Michigan Act and/or the Federal Act and constitutes grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

2. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Department, as required by Sections 3110 and 4104 of the Michigan Act. Permittees authorized to discharge storm water shall have the storm water treatment and/or control measures under direct supervision of a storm water operator certified by the Department, as required by Section 3110 of the Michigan Act.

3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

4. Power Failures

In order to maintain compliance with the effluent limitations of this permit and prevent unauthorized discharges, the permittee shall either:

- a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or
- b. upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with any effluent limitation specified in this permit including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

6. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of polluting materials in accordance with the requirements of the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code). For a Publicly Owned Treatment Work (POTW), these facilities shall be approved under Part 41 of the Michigan Act.

PART II

Section D. Management Responsibilities

7. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit, or other pollutants or wastes) removed from or resulting from treatment or control of wastewaters, including those that are generated during treatment or left over after treatment or control has ceased shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. These laws may include, but are not limited to, the Michigan Act, Part 31 for protection of water resources, Part 55 for air pollution control, Part 111 for hazardous waste management, Part 115 for solid waste management, Part 121 for liquid industrial wastes, Part 301 for protection of inland lakes and streams, and Part 303 for wetlands protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwaters of the state.

8. Right of Entry

The permittee shall allow the Department, any agent appointed by the Department or the Regional Administrator, upon the presentation of credentials:

- a. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any discharge of pollutants.

9. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Act and Rule 2128 (Rule 323.2128 of the Michigan Administrative Code), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the Regional Administrator. As required by the Federal Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Act and Sections 3112, 3115, 4106 and 4110 of the Michigan Act.

PART II**Section E. Activities Not Authorized by This Permit****1. Discharge to the Groundwaters**

This permit does not authorize any discharge to the groundwaters. Such discharge may be authorized by a groundwater discharge permit issued pursuant to the Michigan Act.

2. Facility Construction

This permit does not authorize or approve the construction or modification of any physical structures or facilities. Approval for such construction for a POTW must be by permit issued under Part 41 of the Michigan Act. Approval for such construction for a mobile home park, campground or marina shall be from the Water Bureau, Michigan Department of Environmental Quality. Approval for such construction for a hospital, nursing home or extended care facility shall be from the Division of Health Facilities and Services, Michigan Department of Consumer and Industry Services upon request.

3. Civil and Criminal Liability

Except as provided in permit conditions on "Bypass" (Part II.C.9. pursuant to 40 CFR 122.41(m)), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Federal Act except as are exempted by federal regulations.

5. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Federal Act.

6. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other Department of Environmental Quality permits, or approvals from other units of government as may be required by law.